The Journal of

Membrane Biology

An international journal
for studies on the structure, function and genesis
of biomembranes

Volumes 121–130 1991–1992

Editorial Board

W.R. Loewenstein, Miami, Editor-in-Chief

Q. Al-Awqati, Columbia
G. Blobel, Rockefeller
D. Branton, Harvard
P. Cuatrecasas, Warner Lambert
J.M. Diamond, California, L.A.
D. Engelman, Yale
S. Fleischer, Vanderbilt
J.G. Forte, California, Berkeley
J. Handler, Johns Hopkins
A. Helenius, Yale
L. Heppel, Cornell
W.L. Hubbell, California, L.A.
R.B. Kelly, California, S.F.
A. Klug, Cambridge
E.A.C. MacRobbie, Cambridge
V.T. Marchesi, Yale
H.M. McConnell, Stanford
S. McLaughlin, SUNY, Stony Brook
C. Miller, Brandeis
H. Murer, Zurich
G.E. Palade, California, S.D.
H. Reuter, Bern
B. Sakmann, Max-Planck, Heidelberg
R.W. Schekman, California, Berkeley
S.G. Schultz, Texas
S.J. Singer, California, S.D.
C.L. Slayman, Yale
K.R. Spring, N.I.H.
C.F. Stevens, Salk Institute
W. Stoeckenius, California, S.F.
R.W. Tsien, Stanford
D. Urry, Alabama
H.H. Ussing, Copenhagen

S.C. Villamil, Assistant to the Editor

Springer International

The exclusive copyright for all languages and countries, including the right for photomechanical and any other reproductions, also in microform, is transferred to the publisher

The use of registered names, trademarks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

Printed in the United States

© 1992 by Springer-Verlag New York Inc.

Author Index—Volumes 121–130

Abu-Ghazaleh, R.I., Gleich, G.J., Prendergast, F.G.: Interaction of Eosinophil Granule Major Basic Protein with Synthetic Lipid Bilayers: A Mechanism for Toxicity 128:153

Abumrad, N.A., *see* Harmon, C.M., et al. 121:261

Adjei, P.N., *see* Valant, P.A., et al. 130:63

Adragna, N.C.: Cation Transport in Vascular Endothelial Cells and Aging 124:285

Akeson, M., Scharff, J., Sharp, C.M., Neville, D.M., Jr.: Evidence that Plasma Membrane Electrical Potential Is Required for Vesicular Stomatitis Virus Infection of MDCK Cells: A Study Using Fluorescence Measurements through Polycarbonate Supports 125:81

Alejandro, A., *see* Ibarrola, I., et al. 125:185

Althoff, G., *see* Schönknecht, G., et al. 126:265

Alton, E.W.F.W., Williams, A.J.: Modification of Gating of an Airway Epithelial Chloride Channel by 5-Nitro-2-(3-Phenylpropylamino)Benzoic Acid (NPPB) 128:141

Ambudkar, I.S., *see* Hiramatsu, Y., et al. 129:277

Ambudkar, I.S., *see* Mertz, L.M., et al. 126:183

Andersen, H., Nielsen, R.: Papaverine Reduces the Sodium Permeability of the Apical Membrane and the Potassium Permeability of the Basolateral Membrane in Isolated Frog Skin 126:235

Andreoli, T.E., *see* Winters, C.J., et al. 122:89

Andreoli, T.E., *see* Winters, C.J., et al. 128:27

Apell, H.J., *see* Bühler, R., et al. 121:141

Apell, H.J., *see* Stürmer, W., et al. 121:163

Arcangeli, A., Del Bene, M.R., Becchetti, A., Wanke, E., Olivotto, M.: Effects of Inhibitors of Ion-Motive ATPases on the Plasma Membrane Potential of Murine Erythroleukemia Cells 126:123

Argent, B.E., *see* Pollard, C.E., et al. 124:275

Arispe, N., Pollard, H.B., Rojas, E.: Calcium-Independent K^+-Selective Channel from Chromaffin Granule Membranes 130:191

Arnoult, C., *see* Vivaudou, M.B., et al. 122:165

Aronson, P.S., *see* Zweifach, A., et al. 128:115

Assmann, S.M., *see* Fairley-Grenot, K.A. 128:103

Augeron, C., *see* Bajnath, R.B., et al. 122:239

Avenet, P., Lindemann, B.: Noninvasive Recording of Receptor Cell Action Potentials and Sustained Currents from Single Taste Buds Maintained in the Tongue: The Response to Mucosal NaCl and Amiloride 124:33

Bacigalupo, J., *see* Johnson, E.C. 130:33

Baez, J., *see* Van Houten, J.L., et al. 124:94

Bajnath, R.B., Augeron, C., Laboisse, C.L., Bijman, J., de Jonge, H.R., Groot, J.A.: Electrophysiological Studies of Forskolin-Induced Changes in Ion Transport in the Human Colon Carcinoma Cell Line HT-29 cl.19A: Lack of Evidence for a cAMP-Activated Basolateral K^+ Conductance 122:239

Bajnath, R.B., Dekker, K., Vaandrager, A.B., de Jonge, H.R., Groot, J.A.: Biphasic Increase of Apical Cl^- Conductance by Muscarinic Stimulation of HT-29cl.19A Human Colon Carcinoma Cell Line: Evidence for Activation of Different Cl^- Conductances by Carbachol and Forskolin 127:81

Balbi, D., *see* Miguel, V., et al. 129:37

Balda, M.S., González-Mariscal, L., Contreras, R.G., Macias-Silva, M., Torres-Marquez, M.E., Sáinz, J.A.G., Cereijido, M.: Assembly and Sealing of Tight Junctions: Possible Participation of G-proteins, Phospholipase C, Protein Kinase C and Calmodulin 122:193

Banderali, U., Roy, G.: Activation of K^+ and Cl^- Channels in MDCK Cells during Volume Regulation in Hypotonic Media 126:219

Bar-Noy, S., Cabantchik, A.I.: Response to: Measurement of Exofacially Reactive Lysines on Human Erythrocyte Band 3 Using Pyridoxal 5′-Phosphate (Letter) 121:92

Barchi, R.L., *see* Cohen, S.A. 128:219

Barry, P.H., Lynch, J.W.: Erratum 125:286

Barry, P.H., Lynch, J.W.: Liquid Junction Potentials and Small Cell Effects in Patch-Clamp Analysis 121:101

Bashford, C.L., *see* Korchev, Y.E., et al. 127:195

Battino, M., *see* Samorì, B., et al. 128:193

Baum, B.J., *see* Hiramatsu, Y., et al. 129:277

Baum, B.J., *see* Mertz, L.M., et al. 126:183

Becchetti, A., *see* Arcangeli, A., et al. 126:123

Bégin-Heick, N., *see* Fournier, L., et al. 129:267

Beilby, M.J., Bisson, M.A.: *Chara* Plasmalemma at High pH: Voltage Dependence of the Conductance at Rest and during Excitation 125:25

Belan, P.V., *see* Tepikin, A.V., et al. 123:43

Bennett, N., *see* Ildefonse, M. 123:133

Bennett, N., *see* Ildefonse, M., et al. 130:91

Benterbusch, R., Herberg, F.W., Melzer, W., Thieleczek, R.: Excitation-Contraction Coupling in a Pre-Vertebrate Twitch Muscle: The Myotomes of *Branchiostoma lanceolatum* 129:237

Benz, I., Herzig, J.W., Kohlhardt, M.: Opposite Effects of Angiotensin II and the Protein Kinase C Activator OAG on Cardiac Na^+ Channels 130:183

Benz, I., Kohlhardt, M.: Differential Response of DPI-Modified Cardiac Na^+ Channels to Antiarrhythmic Drugs: No Flicker Blockade by Lidocaine 126:257

Benz, I., Kohlhardt, M.: Responsiveness of Cardiac Na^+ Channels to Antiarrhythmic Drugs: The Role of Inactivation 122:267

Benz, R., *see* Klughammer, B., et al. 128:17

Bernhardt, J., *see* Orlov, S.N., et al. 129:199

Berry, M.S., *see* Wuttke, W.A. 127:57

Berteloot, A., Malo, C., Breton, S., Brunette, M.: Fast Sampling, Rapid Filtration Apparatus: Principal Characteristics and Validaton from Studies of D-Glucose Transport in Human Jejunal Brush-Border Membrane Vesicles 122:111

Berteloot, A., *see* Malo, C. 122:127

Beth, A.H., *see* Harmon, C.M., et al. 121:261

Betz, M., *see* Klughammer, B., et al. 128:17

Beyer, E.C., Reed, K.E., Westphale, E.M., Kanter, H.L., Larson, D.M.: Molecular Cloning and Expression of Rat Connexin40, a Gap Junction Protein Expressed in Vascular Smooth Muscle 127:69

Bhave, A., *see* Przywara, D.A., et al. 125:155

Bhave, S.V., *see* Przywara, D.A., et al. 125:155

Bian, J., *see* Corbett, A.M., et al. 128:165

Bijman, J., *see* Bajnath, R.B., et al. 122:239

Bilodeau, L., *see* Durroux, T., et al. 129:145

Bisson, M.A., *see* Beilby, M.J. 125:25

Blatt, M.R., *see* Thiel, G., et al. 126:1

Blumwald, E., *see* Pantoja, O., et al. 125:219

Bonga, S.E.W., *see* Schoenmakers, T.J.M., et al. 127:161

Bookchin, R.M., *see* Lew, V.L. 122:55

Bottà, G., *see* Cremaschi, D., et al. 129:221

Bowler, J.M., Purves, R.D., Macknight, D.C.: Effects of Potas-

sium-Free Media and Ouabain on Epithelial Cell Composition in Toad Urinary Bladder Studied with X-Ray Microanalysis 123:115
Branco, L.G.S., Varanda, W.A.: Toad Bladder Amiloride-Sensitive Channels Reconstituted into Planar Lipid Bilayers 127:121
Brandt, N.R., Caswell, A.H., Brandt, T., Brew, K., Mellgren, R.L.: Mapping of the Calpain Proteolysis Products of the Junctional Foot Protein of the Skeletal Muscle Triad Junction 127:35
Brandt, T., *see* Brandt, N.R., et al. 127:35
Bräu, M.E., *see* Koh, D.S., et al. 130:149
Breton, S., *see* Berteloot, A., et al. 122:111
Breton, S., *see* Laprade, R., et al. 121:249
Brew, K., *see* Brandt, N.R., et al. 127:35
Brocklehurst, K.W., *see* Cea, V., et al. 122:23
Brodwick, M.S., Curran, M., Edwards, C.: Effects of Osmotic Stress on Mast Cell Vesicles of the Beige Mouse 126:159
Broillet, M.-C., Horisberger, J.-D.: Basolateral Membrane Potassium Conductance of A6 Cells 124:1
Brovtsyna, N.B., *see* Zhorov, B.S., et al. 121:119
Brunette, M., *see* Berteloot, A., et al. 122:111
Buhler, F.R., *see* Orlov, S.N., et al. 129:199
Bühler, R., Stürmer, W., Apell, H.J., Läuger, P.: Charge Translocation by the Na,K-Pump: I. Kinetics of Local Field Changes Studied by Time-Resolved Fluorescence Measurements 121:141
Bühler, R., *see* Stürmer, W., et al. 121:163
Bullock, J.O.: Ion Selectivity of Colicin E1: Modulation by pH and Membrane Composition 125:255
Bullock, J.O., Kolen, E.R., Shear, J.L.: Ion Selectivity of Colicin E1: II. Permeability to Organic Cations 128:1
Calla, H.J., *see* Hoyer, J., et al. 123:55
Canut, H., *see* Dietz, K.-J., et al. 129:137
Cardinal, J., *see* Laprade, R., et al. 121:249
Caretta, A., Sorbi, R.T., Stein, P.J., Tirindelli, R.: Diltiazem at High Concentration Increases the Ionic Premeability of Biological Membranes 122:203
Carignani, C., Robello, M., Marchetti, C., Maga, L.: A Transient Outward Current Dependent on External Calcium in Rat Cerebellar Granule Cells 122:259
Carosi, S.L., *see* Sansom, S.C. 126:67
Carpenter, G., *see* Hernàndez-Sotomayor, S.M.T. 128:81
Casado, F.J., *see* Ruiz-Montasell, B., et al. 128:227
Casavola, V., Guerra, L., Helmle-Kolb, C., Reshkin, S.J., Murer, H.: Na^+/H^+-Exchange in A6 Cells: Polarity and Vasopressin Regulation 130:105
Castillo, C., *see* Miguel, V., et al. 129:37
Caswell, A.H., *see* Brandt, N.R., et al. 127:35
Cayanis, E., Russo, J.J., Wu, Y., Edelman, I.S.: Serum Independence of Low K^+ Induction of Na,K-ATPase: Possible Role of *c-fos* 125:163
Cea, V., Brocklehurst, K.W., Pollard, H.B., Rojas, E.: Pertussis Toxin Stimulation of Catecholamine Release from Adrenal Medullary Chromaffin Cells: Mechanism May Be by Direct Activation of L-Type and G-Type Calcium Channels 122:23
Cereijido, M., *see* Balda, M.S., et al. 122:193
Cereijido, M., *see* Olea, R.J., et al. 121:1
Chathadi, K.V., *see* Thèvenod, F., et al. 129:253
Chen, M., *see* Satin, J., et al. 130:11
Chen, Y., DeHaan, R.L.: Multiple-Channel Conductance States and Voltage Regulation of Embryonic Chick Cardiac Gap Junctions 127:95
Chowdhury, P.S., *see* Przywara, D.A., et al. 125:155
Christensen, H.N., Ronquist, G.: Membrane Transport Properties of L-2,4-Diaminobutyrate Revisited 127:1
Christensen, O., Hoffmann, E.K.: Cell Swelling Activates K^+ and Cl^- Channels as well as Nonselective, Stretch-Activated Cation Channels in Ehrlich Ascites Tumor Cells 129:13
Civan, M.M., Oler, A., Peterson-Yantorno, K., George, K., O'Brien, T.G.: Ca^{2+}-Independent Form of Protein Kinase C May Regulate Na^+ Transport across Frog Skin 121:37
Civan, M.M., *see* Wu, M.M. 121:23
Clapham, D.E., *see* Tabares, L., et al. 123:49
Clausen, C., *see* Lewis, S.A. 122:77
Clausen, C., *see* Wills, N.K., et al. 125:273
Cochran, M., *see* Fitz, J.G., et al. 122:1
Cohen, A.S., *see* Sala, S., et al. 122:177
Cohen, L.B., *see* Loew, L.M., et al. 130:1
Cohen, S.A., Barchi, R.L.: Localization of Epitopes for Antibodies that Differentially Label Sodium Channels in Skeletal Muscle Surface and T-Tubular Membranes 128:219
Coleman, L., *see* Pollard, C.E., et al. 124:275
Colombini, M., *see* Wunder, U.R. 123:83
Connor, J.A., *see* Loechner, K.J., et al. 128:41
Conover, T.E., *see* Kalenak, A., et al. 123:23
Contreras, R.G., *see* Balda, M.S., et al. 122:193
Cook, D.L., *see* Hopkins, W.F., et al. 129:287
Cooper, K., *see* Watsky, M.A., et al. 128:123
Corbett, A.M., Bian, J., Wade, J.B., Schneider, M.F.: Depolarization-Induced Calcium Release from Isolated Triads Measured with Impermeant Fura-2 128:165
Corkey, B.E., *see* Hopkins, W.F., et al. 129:287
Cote, B.L., *see* Van Houten, J.L., et al. 124:94
Cragoe, E.J., Jr., *see* Miyamoto, T., et al. 127:173
Cragoe, E.J., Jr., *see* Zhang, G.H., et al. 129:311
Cremaschi, D., Porta, C., Bott, G., Meyer, G.: Nature of the Neutral Na^+-Cl^- Coupled Entry at the Apical Membrane of Rabbit Gallbladder Epithelium: IV. Na^+/H^+, Cl^-/HCO_3^- Double Exchange, Hydrochlorothiazide-Sensitive Na^+-Cl^- Symport and Na^+-K^+-$2Cl^-$ Cotransport are all Involved 129: 221
Croghan, P.C., *see* Williams, M.R., et al. 129:179
Crouzy, S., *see* Ildefonse, M., et al. 130:91
Crowe, W.E., *see* Wills, N.K., et al. 121:79
Cukierman, S.: Characterization of K^+ Currents in Rat Malignant Lymphocytes (Nb2 Cells) 126:147
Curran, M., *see* Brodwick, M.S., et al. 126:159
Dainty, J., *see* Pantoja, O., et al. 125:219
Dantzer, V., *see* Holtug, K., et al. 122:215
Dascal, N., *see* Nargeot, J., et al. 126:97
Dautigny, A., *see* Popot, J.-L., et al. 123:278
de Jonge, H.R., *see* Bajnath, R.B., et al. 122:239
de Jonge, H.R., *see* Bajnath, R.B., et al. 127:81
DeFelice, L.J., *see* Mazzanti, M., et al. 121:189
DeHaan, R.L., *see* Chen, Y. 127:95
Dekker, K., *see* Bajnath, R.B., et al. 127:81
Del Bene, M.R., *see* Arcangeli, A., et al. 126:123
Delpire, E., Lauf, P.K.: Kinetics of DIDS Inhibition of Swelling-Activated K-Cl Cotransport in Low K Sheep Erythrocytes 126:89
Desir, G.V., *see* Zweifach, A., et al. 128:115
Dietz, K.-J., Canut, H., Marigo, G.: Identification of an Essential Histidine Residue at the Active Site of the Tonoplast Malate Carrier in *Catharanthus roseus* Cells 129:137
Dietz, K.-J., *see* Klughammer, B., et al. 128:17
Dinh, D.P., *see* Popot, J.-L., et al. 123:278
Dix, J., *see* Loew, L.M., et al. 130:1
Dixon, S.J., *see* Kelly, M.E.M., et al. 126:171
Domini, G., *see* Samor, B., et al. 128:193
Donaldson, P., Kistler, J.: Reconstitution of Channels from

Preparations Enriched in Lens Gap Junction Protein MP70 129:155
Donaldson, P.J., *see* Shen, L., et al. 124:21
Draber, S., Schultze, R., Hansen, U.-P.: Patch-Clamp Studies on the Anomalous Mole Fraction Effect of the K^+ Channel in Cytoplasmic Droplets of *Nitella*: An Attempt to Distinguish between a Multi-Ion Single-File Pore and an Enzyme Kinetic Model with Lazy State 123:183
Dufy, B., *see* Sartor, P., et al. 126:39
Dufy-Barbe, L., *see* Sartor, P., et al. 126:39
Duhl, A.J., see Lee, Y.S., et al. 122:155
Duhm, J., *see* Engelmann, B. 122:231
Duncan, G., *see* Williams, M.R., et al. 129:179
Duplain, M., *see* Laprade, R., et al. 121:249
Durroux, T., Gallo-Payet, N., Bilodeau, L., Payet, M.D.: Background Calcium Permeable Channels in Glomerulosa Cells from Adrenal Gland 129:145
Dzgnes, N., Shavnin, S.A.: Membrane Destabilization by N-Terminal Peptides of Viral Envelope Proteins 128:71
Dwyer, B.E., *see* Morduchowicz, G.A., et al. 122:43
Edelman, I.S., *see* Cayanis, E., et al. 125:163
Edwards, C., *see* Brodwick, M.S., et al. 126:159
Ehring, G.R., Lagos, N., Zampighi, G.A., Hall, J.E.: Phosphorylation Modulates the Voltage Dependence of Channels Reconstituted from the Major Intrinsic Protein of Lens Fiber Membranes 126:75
Ehrlich, B.E., *see* Lee, Y.S., et al. 122:155
Eichenlaub, R., *see* Schürholz, Th., et al. 123:1
Eisenberg, R.S., *see* Wang, J., et al. 130:163
Engelmann, B., Duhm, J.: Effect of Cholesterol and Dipalmitoyl Phosphatidylcholine Enrichment on the Kinetics of Na-Li Exchange of Human Erythrocytes 122:231
Faelli, A., *see* Orsenigo, M.N., et al. 124:13
Fairley, K., Laver, D., Walker, N.A.: Whole-Cell and Single-Channel Currents across the Plasmalemma of Corn Shoot Suspension Cells 121:11
Fairley-Grenot, K.A., Assmann, S.M.: Permeation of Ca^{2+} through K^+ Channels in the Plasma Membrane of *Vicia faba* Guard Cells 128:103
Faller, D., Ryan, M.P.: Factors Affecting Chloride Conductance in Apical Membrane Vesicles from Human Placenta 130:227
Farrugia, G., Rae, J.L.: Regulation of a Potassium-Selective Current in Rabbit Corneal Epithelium by Cyclic GMP, Carbachol and Diltiazem 129:99
Farrugia, G., *see* Rae, J.L. 129:81
Fatherazi, S., *see* Hopkins, W.F., et al. 129:287
Felipe, A., *see* Ruiz-Montasell, B., et al. 128:227
Felle, H., *see* Miedema, H., et al. 128:63
Ferrier, J., Grygorczyk, C., Grygorczyk, R., Kesthely, A., Lagan, E., Xia, S.-L.: Ba^{2+}-Induced Action Potentials in Osteoblastic Cells 123:255
Fiedler, J.L., Pollard, H.B., Rojas, E.: Quantitative Analysis of Depolarization-Induced ATP Release from Mouse Brain Synaptosomes: External Calcium Dependent and Independent Processes 127:21
Findlay, G.P., *see* Terry, B.R., et al. 121:223
Fitz, J.G., Lidofsky, S.D., Weisiger, R.A., Xie, M.-H., Cochran, M., Grotmol, T., Scharschmidt, B.F.: HCO_3^--Coupled Na^+ Influx is a Major Determinant of Na^+ Turnover and Na^+/K^+ Pump Activity in Rat Hepatocytes 122:1
Flik, G., *see* Schoenmakers, T.J.M., et al. 127:161
Fluhler, E.N., *see* Loew, L.M., et al. 130:1
Forgo, J., *see* Mrkic, B., et al. 130:205
Forgo, J., *see* Reshkin, S.J., et al. 124:227
Forgo, J., *see* Reshkin, S.J., et al. 126:194
Forsyth, G.W., *see* Gabriel, S.E., et al. 129:323
Fournier, L., Bégin-Heick, N., Whitfield, J.F., Schwartz, J.-L.: Comparison of the Properties of the ATP-Sensitive K^+ Channels of Pancreatic β-Cells of Lean and Obese (ob/ob) C57BL/6J Mice 129:267
Fozzard, H.A., *see* Satin, J., et al. 130:11
Frindt, G., *see* Silver, R.B., et al. 125:13
Furlong, T.J., Moriyama, T., Spring, K.R.: Activation of Osmolyte Efflux from Cultured Renal Papillary Epithelial Cells 123:269
Gabriel, S.E., Racette, K.J., Gaspar, K.J., Forsyth, G.W.: Inhibition of Ileal Brush-Border Chloride Conductance by Specific Antibody 129:323
Gagnon, M.L., *see* Van Houten, J.L., et al. 124:94
Gallin, E.K., *see* McKinney, L.C. 130:265
Gallo-Payet, N., *see* Durroux, T., et al. 129:145
Garber, S.S.: Outwardly Rectifying Chloride Channels in Lymphocytes 127:49
Garcia, M.C., *see* Lizardi, L., et al. 129:167
Gárdos, G., *see* Sarkadi, B., et al. 123:9
Gaspar, K.J., *see* Gabriel, S.E., et al. 129:323
Gaucher, J.-C., *see* van der Goot, F.G., et al. 128:133
George, K., *see* Civan, M.M., et al. 121:37
Gheber, L., *see* Weiss, T., et al. 127:185
Giebisch, G., *see* Zweifach, A., et al. 128:115
Gimsa, J., *see* Markin, V.S., et al. 126:137
Girsch, S.J., *see* Shen, L., et al. 124:21
Gläser, H.U., *see* Sekler, I., et al. 121:51
Gleich, G.J., *see* Abu-Ghazaleh, R.I., et al. 128:153
Gmiro, V.E., *see* Zhorov, B.S., et al. 121:119
Gögelein, H., *see* Hoyer, J., et al. 123:55
Goldberg, A.F.X., Miller, C.: Solubilization and Functional Reconstitution of a Chloride Channel from *Torpedo californica* Electroplax 124:199
Golino, M.D., Hamill, O.P.: Subunit Requirements for *Torpedo* AChR Channel Expression: A Specific Role for the δ-Subunit in Voltage-Dependent Gating 129:297
González-Mariscal, L., *see* Balda, M.S., et al. 122:193
Gorczyca, M.G., Wu, C.F.: Single-Channel K^+ Currents in *Drosophila* Muscle and Their Pharmacological Block 121:237
Gradmann, D., *see* Mummert, H. 124:255
Gradmann, D., *see* Mummert, H. 124:265
Groot, J.A., *see* Bajnath, R.B., et al. 122:239
Groot, J.A., *see* Bajnath, R.B., et al. 127:81
Grotmol, T., *see* Fitz, J.G., et al. 122:1
Grygorczyk, C., *see* Ferrier, J., et al. 123:255
Grygorczyk, R., *see* Ferrier, J., et al. 123:255
Guerra, L., *see* Casavola, V., et al. 130:105
Gusev, G.P., *see* Skulskii, I.A., et al. 130:219
Hall, J.E., *see* Ehring, G.R., et al. 126:75
Hall, J.E., *see* Miller, A.G., et al. 128:91
Hamill, O.P., *see* Golino, M.D. 129:297
Hamilton, J.R., *see* MacLeod, R.J., et al. 130:23
Hansen, U.-P., *see* Draber, S., et al. 123:183
Harmon, C.M., Luce, P., Beth, A.H., Abumrad, N.A.: Labeling of Adipocyte Membranes by Sulfo-*N*-Succinimidyl Derivatives of Long-Chain Fatty Acids: Inhibition of Fatty Acid Transport 121:261
Harris, A., *see* Pollard, C.E., et al. 124:275
Hashimoto, A., *see* Kotera, T., et al. 124:43
Haynes, D.H., *see* Valant, P.A., et al. 130:63
Hegde, R.S., Palfrey, H.C.: Ionic Effects on Bumetanide Binding to the Activated Na/K/2Cl Cotransporter: Selectivity and Kinetic Properties of Ion Binding Sites 126:27
Helmle-Kolb, C., *see* Casavola, V., et al. 130:105

Helmle-Kolb, C., *see* Mrkic, B., et al. 130:205
Herberg, F.W., *see* Benterbusch, R., et al. 129:237
Hernández-Sotomayor, S.M.T., Carpenter, G.: Epidermal Growth Factor Receptor: Elements of Intracellular Communication 128:81
Hersey, S.J., *see* Wilkes, J.M., et al. 122:97
Herzig, J.W., *see* Benz, I., et al. 130:183
Hiramatsu, Y., Baum, B.J., Ambudkar, I.S.: Elevation of Cytosolic [Ca^{2+}] Due to Intracellular Ca^{2+} Release Retards Carbachol Stimulation of Divalent Cation Entry in Rat Parotid Gland Acinar Cells 129:277
Hirst, B.H., *see* Wilkes, J.M. 126:115
Hofer, A.M., Machen, T.E.: K-Induced Alkalinization in All Cell Types of Rabbit Gastric Glands: A Novel K/H Exchange Mechanism 126:245
Hoffmann, E.K., *see* Christensen, O. 129:13
Holtug, K., Shipley, A., Dantzer, V., Sten-Knudsen, O., Skadhauge, E.: Localization of Sodium Absorption and Chloride Secretion in an Intestinal Epithelium 122:215
Homolya, L., *see* Sarkadi, B., et al. 123:9
Hopfer, U., *see* Thvenod, F., et al. 129:253
Hopkins, W.F., Fatherazi, S., Peter-Riesch, B., Corkey, B.E., Cook, D.L.: Two Sites for Adenine-Nucleotide Regulation of ATP-Sensitive Potassium Channels in Mouse Pancreatic β-Cells and HIT Cells 129:287
Horisberger, J.-D., *see* Broillet, M.-C. 124:1
Horowicz, P., *see* Spalding, B.C., et al. 123:223
Hotz-Wagenblatt, A., *see* Mehta, P.P., et al. 124:207
Hoyer, J., Popp, R., Meyer, J., Calla, H.J., Gögelein, H.: Angiotensin II, Vasopressin and GTP[γ-S] Inhibit Inward-Rectifying K^+ Channels in Porcine Cerebral Capillary Endothelial Cells 123:55
Hundal, H.S., *see* Taylor, P.M., et al. 128:181
Hurtubise, Y., *see* Paul, E., et al. 127:129
Ibarrola, I., Alejandro, A., Marino, A., Sancho, M.J., Macarulla, J.M., Trueba, M.: Characterization by Photoaffinity Labeling of a Steroid Binding Protein in Rat Liver Plasma Membrane 125:185
Ildefonse, M., Bennett, N.: Single-Channel Study of the cGMP-Dependent Conductance of Retinal Rods from Incorporation of Native Vesicles into Planar Lipid Bilayers 123:133
Ildefonse, M., Crouzy, S., Bennett, N.: Gating of Retinal Rod Cation Channel by Different Nucleotides: Comparative Study of Unitary Currents 130:91
Im, M.B., Quandt, F.N.: Mechanism of Asymmetric Block of K Channels by Tetraalkylammonium Ions in Mouse Neuroblastoma Cells 130:115
Ivey, S., Thornhill, W.B., Levinson, S.R.: Monoclonal Antibodies Raised against Post-translational Domains of the Electroplax Sodium Channel 121:215
Janoshazi, A., Kifor, G., Solomon, A.K.: Conformational Changes in Human Red Cell Membrane Proteins Induced by Sugar Binding 123:191
Jarvis, L.J., Louis, C.F.: The Permeability of Reconstituted Liposomes Containing the Purified Lens Fiber Cell Integral Membrane Proteins MP20, MP26 and MP70 130:251
Jian-young, W., *see* Loew, L.M., et al. 130:1
Jiang, B., *see* Thévenod, F., et al. 129:253
Jo, O.D., *see* Morduchowicz, G.A., et al., 122:43
Johnson, E.C., Bacigalupo, J.: Spontaneous Activity of the Light-Dependent Channel Irreversibly Induced in Excised Patches from *Limulus* Ventral Photoreceptors 130:33
Jonas, P., *see* Koh, D.S., et al. 130:149
Jones, G.L., *see* Tilley, L., et al. 121:59
Jow, B., *see* Nelson, D.J., et al. 125:207
Jow, F., *see* Nelson, D.J., et al. 125:207
Junge, W., *see* Schönknecht, G., et al. 126:265
Kaczmarek, L.K., *see* Loechner, K.J., et al. 128:41
Kajimura, M., *see* Wilkes, J.M., et al. 122:97
Kalenak, A., McKenzie, R.J., Conover, T.E.: Response of the Electrochromic Dye, Merocyanine 540, to Membrane Potential in Rat Liver Mitochondria 123:23
Kanter, H.L., *see* Beyer, E.C., et al. 127:69
Katsiou, E., *see* Schürholz, Th., et al. 123:1
Keizer, J., *see* Smolen, P. 127:9
Kelly, M.E.M., Dixon, S.J., Sims, S.M.: Inwardly Rectifying Potassium Current in Rabbit Osteoclasts: A Whole-Cell and Single-Channel Study 126:171
Kesthely, A., *see* Ferrier, J., et al. 123:255
Kifor, G., *see* Janoshazi, A., et al. 123:191
Kim, D.H., *see* Lee, Y.S., et al. 122:155
Kimura, M., *see* Kuno, M. 128:53
Kistler, J., *see* Donaldson, P. 129:155
Klaren, P.H.M., *see* Schoenmakers, T.J.M., et al. 127:161
Klitsch, T., Siemen, D.: Inner Mitochondrial Membrane Anion Channel is Present in Brown Adipocytes but is not Identical with the Uncoupling Protein 122:69
Klughammer, B., Betz, M., Benz, R., Dietz, K.-J.: Partial Purification of a Potassium Channel with Low Permeability for Sodium from Tonoplast Membranes of *Hordeum vulgare* cv. Gerbel 128:17
Knox, R.J., *see* Loechner, K.J., et al. 128:41
Koch, M., *see* Stahl, F., et al. 127:215
Kodner, A., *see* Mayer, E.A., et al. 125:107
Koh, D.S., Jonas, P., Bräu, M.E., Vogel, W.: A TEA-Insensitive Flickering Potassium Channel Active around the Resting Potential in Myelinated Nerve 130:149
Kohlhardt, M.: Gating Properties of Cardiac Na^+ Channels in Cell-Free Conditions 122:11
Kohlhardt, M., *see* Benz, I. 122:267
Kohlhardt, M., *see* Benz, I. 126:257
Kohlhardt, M., *see* Benz, I., et al. 130:183
Kolen, E.R., *see* Bullock, J.O., et al. 128:1
Korchev, Y.E., Bashford, C.L., Pasternak, C.A.: Differential Sensitivity of Pneumolysin-Induced Channels to Gating by Divalent Cations 127:195
Korda, M., *see* Zorec, R., et al. 125:41
Koshlukova, S.E., Momchilova-Pankova, A.B., Markovska, T.T., Koumanov, K.S.: Phospholipid Dependence of Rat Liver Microsomal Acyl:CoA Synthetase and Acyl-CoA:1-Acyl-*sn*-Glycero-3-Phosphocholine O-Acyltransferase 127:113
Kostyuk, P.G., *see* Tepikin, A.V., et al. 123:43
Kotera, T., Hashimoto, A., Ueda, S., Okada, Y.: Whole-Cell K^+ Current Activation in Response to Voltages and Carbachol in Gastric Parietal Cells Isolated from Guinea Pig 124:43
Koumanov, K.S., *see* Koshlukova, S.E., et al. 127:113
Kra-Oz, Z., Spira, G., Palti, Y., Meiri, H.: Involvement of Different S_4 Parts in the Voltage Dependency of Na Channel Gating 129:189
Kraehenbuhl, J.-P.: *see* Schaerer, E., et al. 123:93
Krippeit-Drews, P., Schmidt, H.: Effects of Ca^{2+} and Other Divalent Cations on K^+-Evoked Force Production of Slow Muscle Fibers from *Rana esculenta* and *Rana pipiens* 129:211
Kuno, M., Kimura, M.: Noise of Secretagogue-Induced Inward Currents Dependent on Extracellular Calcium in Rat Mast Cells 128:53
Kunze, D.L., *see* Vaca, L. 130:241
Kurenniy, D.E., *see* Zhorov, B.S., et al. 121:119
Kyle, J.W., *see* Satin, J., et al. 130:11
Laboisse, C.L., *see* Bajnath, R.B., et al. 122:239

Lagan, E., *see* Ferrier, J., et al. 123:255
Lagos, N., *see* Ehring, G.R., et al. 126:75
Lang, F., *see* Weiss, H. 126:109
Langer, G.A., *see* Peskoff, A., et al. 129:59
Langer, G.A., *see* Post, J.A. 129:49
Lapointe, J.Y., *see* Laprade, R., et al. 121:249
Laprade, R., Lapointe, J.Y., Breton, S., Duplain, M., Cardinal, J.: Intracellular Potassium Activity in Mammalian Proximal Tubule: Effect of Perturbations in Transepithelial Sodium Transport 121:249
Laprade, R., *see* Nol, J., et al. 128:205
Larson, D.M., *see* Beyer, E.C., et al. 127:69
LaTona, J., *see* Rakowski, R.F., et al. 121:177
Lauf, P.K., *see* Delpire, E. 126:89
Läuger, P., *see* Bühler, R., et al. 121:141
Läuger, P., *see* Stürmer, W., et al. 121:163
Laver, D., *see* Fairley, K., et al. 121:11
Lázaro, A., *see* Olea, R.S., et al. 121:1
LeBel, D., *see* Paul, E., et al. 127:129
Lee, Y.S., Ondrias, K., Duhl, A.J., Ehrlich, B.E., Kim, D.H.: Comparison of Calcium Release from Sarcoplasmic Reticulum of Slow and Fast Twitch Muscles 122:155
Lembessis, P., *see* MacLeod, R.J., et al. 130:23
Lenaz, G., *see* Samor, B., et al. 128:193
Lepple-Wienhues, A., *see* Stahl, F., et al. 127:215
Lester, H.A., *see* Nargeot, J., et al. 126:97
Levinson, C.: Inability of Ehrlich Ascites Tumor Cells to Volume Regulate Following a Hyperosmotic Challenge 121:269
Levinson, C.: Regulatory Volume Increase in Ehrlich Ascites Tumor Cells Is Mediated by the 1Na:1K:2Cl Cotransport System 126:277
Levinson, S.R., *see* Ivey, S., et al. 121:215
Lew, D.J., Simon, S.M.: Characterization of Constitutive Exocytosis in the Yeast *Saccharomyces cerevisiae* 123:261
Lew, V.L., Bookchin, R.M.: Osmotic Effects of Protein Polymerization: Analysis of Volume Changes in Sickle Cell Anemia Red Cells following Deoxy-Hemoglobin S Polymerization 122:55
Lewis, S.A., Clausen, C.: Urinary Proteases Degrade Epithelial Sodium Channels 122:77
Lidofsky, S.D., *see* Fitz, J.G., et al. 122:1
Lindemann, B., *see* Avenet, P. 124:33
Lindsay, A.R.G., *see* Tinker, A., et al. 127:149
Lingle, C.J., Maconochie, D., Steinbach, J.H.: Activation of Skeletal Muscle Nicotinic Acetylcholine Receptors 126:195
Liu, D., *see* Markin, V.S., et al. 126:137
Lizardi, L., Garcia, M.C., Sanchez, J.A., Zuazaga, C.: Sulfhydryl Alkylating Agents Induce Calcium Current in Skeletal Muscle Fibers of a Crustacean (*Atya lanipes*) 129:167
Lock, R.A.C., *see* Schoenmakers, T.J.M., et al. 127:161
Loechner, K.J., Knox, R.J., Connor, J.A., Kaczmarek, L.K.: Hyperosmotic Media Inhibit Voltage-Dependent Calcium Influx and Peptide Release in *Aplysia* Neurons 128:41
Loew, L.M., Cohen, L.B., Dix, J., Fluhler, E.N., Montana, V., Salama, G., Jian-young, W.: A Naphthyl Analog of the Aminostyryl Pyridinium Class of Potentiometric Membrane Dyes Shows Consistent Sensitivity in a Variety of Tissue, Cell, and Model Membrane Preparations 130:1
Loewenstein, W.R.: Editorial: Theory and Experimentalism in Biological Sciences 129:1
Loewenstein, W.R., *see* Mehta, P.P., et al. 124:207
Loo, D.D.F., *see* Parent, L., et al. 125:49
Loo, D.D.F., *see* Parent, L., et al. 125:63
Loo, D.D.F., *see* Supplisson, S., et al. 123:209
Louis, C.F., *see* Jarvis, L.J. 130:251
Luce, P., *see* Harmon, C.M., et al. 121:261
Lukomskaya, N.Y., *see* Zhorov, B.S., et al. 121:119
Luque, P., Márquez, J., Núñez de Castro, I., Medina, M.A.: Sodium-Dependent L-Serine Transport in Plasma Membrane Vesicles Isolated from Ehrlich Cells by Two-Phase Compartmentation 123:247
Lynch, J.W., *see* Barry, P.H. 121:101
Lynch, J.W., *see* Barry, P.H. 125:286
Lyu, R.-M., Smith, L., Smith, J.B.: Sodium-Calcium Exchange in Renal Epithelial Cells: Dependence on Cell Sodium and Competitive Inhibition by Magnesium 124:73
Maathuis, F.J.M., Prins, H.B.A.: Inhibition of Inward Rectifying Tonoplast Channels by a Vacuolar Factor: Physiological and Kinetic Implications 122:251
Macarulla, J.M., *see* Ibarrola, I., et al. 125:185
Machen, T.E., *see* Hofer, A. 126:245
Macias-Silva, M., *see* Balda, M.S., et al. 122:193
Mackenzie, B., *see* Taylor, P.M., et al. 128:181
Macknight, D.C., *see* Bowler, J.M., et al. 123:115
MacLeod, R.J., Lembessis, P., Hamilton, J.R.: Differences in Ca^{2+}-Mediation of Hypotonic and Na^{+}-Natrient Regulatory Volume Decrease in Suspensions of Jejunal Enterocytes 130:23
Maconochie, D., *see* Lingle, C.J., et al. 126:195
MacRobbie, E.A.C., *see* Thiel, G., et al. 126:1
Maga, L., *see* Carignani, C., et al. 122:259
Magazanik, L.G., *see* Zhorov, B.S., et al. 121:119
Malo, C., Berteloot, A.: Analysis of Kinetic Data in Transport Studies: New Insights from Kinetic Studies of Na^{+}-D-Glucose Cotransport in Human Intestinal Brush-Border Membrane Vesicles Using a Fast Sampling, Rapid Filtration Apparatus 122:127
Malo, C., *see* Berteloot, A., et al. 122:111
Malo, C., *see* Roy, G. 130:83
Maloy, S., *see* Myers, R.S., et al. 121:201
Mandel, G.: Tissue-Specific Expression of the Voltage-Sensitive Sodium Channel 125:193
Manninen, V., *see* Skulskii, I.A., et al. 130:219
Marchetti, C., *see* Carignani, C., et al. 122:259
Marconi, G., *see* Samori, B., et al. 128:193
Margalit, R., *see* Zeevi, A. 121:133
Marigo, G., *see* Dietz, K.-J., et al. 129:137
Marino, A., *see* Ibarrola, I., et al. 125:185
Markin, V.S., Liu, D., Gimsa, J., Strobel, R., Rosenberg, M.D., Tsong, T.Y.: Ion Channel Enzyme in an Oscillating Electric Field 126:137
Markovska, T.T., *see* Koshlukova, S.E., et al. 127:113
Márquez, J., *see* Luque, P., et al. 123:247
Martin, S.C.: ATP Activates a Ca^{2+}-Dependent Cl^{-} Current in the Rat Thyroid Cell Line, FRTL-5 125:243
Marty, A.: Calcium Release and Internal Calcium Regulation in Acinar Cells of Exocrine Glands 124:189
Matteson, D.R., *see* Sala, S., et al. 122:177
Mayer, E.A., Kodner, A., Sun, X.P., Wilkes, J., Scott, D., Sachs, G.: Spatial and Temporal Patterns of Intracellular Calcium in Colonic Smooth Muscle 125:107
Mazzanti, M., DeFelice, L.J., Smith, E.F.: Ion Channels in Murine Nuclei during Early Development and in Fully Differentiated Adult Cells 121:189
Mazzanti, M., *see* Tabares, L., et al. 123:49
McBride, D.W., Jr., Roper, S.D.: Ca^{2+}-Dependent Chloride Conductance in *Necturus* Taste Cells 124:85
McCarty, N.A., O'Neil, R.G.: Calcium-Dependent Control of Volume Regulation in Renal Proximal Tubule Cells: I. Swelling-Activated Ca^{2+} Entry and Release 123:149

McCarty, N.A., O'Neil, R.G.: Calcium-Dependent Control of Volume Regulation in Renal Proximal Tubule Cells: II. Roles of Dihydropyridine-Sensitive and -Insensitive Ca^{2+} Entry Pathways 123:161
McKenzie, R.J., *see* Kalenak, A., et al. 123:23
McKinney, L.C., Gallin, E.K.: G-Protein Activators Induce a Potassium Conductance in Murine Macrophages 130:265
Medina, M.A., *see* Luque, P., et al. 123:247
Mehta, P.P., Hotz-Wagenblatt, A., Rose, B., Shalloway, D., Loewenstein, W.R.: Incorporation of the Gene for a Cell-Cell Channel Protein into Transformed Cells Leads to Normalization of Growth 124:207
Meiri, H., *see* Kra-Oz, Z., et al. 129:189
Meiri, H., *see* Sammar, M., et al. 125:1
Mellgren, R.L., *see* Brandt, N.R., et al. 127:35
Melvin, J.E., *see* Zhang, G.H., et al. 129:311
Melzer, W., *see* Benterbusch, R., et al. 129:237
Mertz, L.M., Baum, B.J., Ambudkar, I.S.: Membrane Potential Modulates Divalent Cation Entry in Rat Parotid Acini 126:183
Meyer, G., *see* Cremaschi, D., et al. 129:221
Meyer, J., *see* Hoyer, J., et al. 123:55
Miedema, H., Felle, H., Prins, H.B.A.: Effect of High pH on the Plasma Membrane Potential and Conductance in *Elodea densa* 128:63
Miguel, V., Balbi, D., Castillo, C., Villegas, R.: Reconstitution of Sodium Channels in Large Liposomes Formed by the Addition of Acidic Phospholipids and Freeze-Thaw Sonication 129:37
Miller, A.G., Zampighi, G.A., Hall, J.E.: Single-Membrane and Cell-to-Cell Permeability Properties of Dissociated Embryonic Chick Lens Cells 128:91
Miller, C.: Efraim Racker, 1913–1991 125:97
Miller, C., *see* Goldberg, A.F.X. 124:199
Millinoff, L.P., *see* Wills, N.K., et al. 121:79
Misler, S., *see* Pressel, D.M. 124:239
Mitra, R.L., Morad, M.: Permeance of Cs^+ and Rb^+ through the Inwardly Rectifying K^+ Channel in Guinea Pig Ventricular Myocytes 122:33
Mixson, A.J., Phang, J.M.: Structural Analogues of Pyrroline 5-Carboxylate Specifically Inhibit Its Uptake into Cells 121:269
Miyamoto, T., Restrepo, D., Cragoe, E.J., Jr., Teeter, J.H.: IP_3- and cAMP-Induced Responses in Isolated Olfactory Receptor Neurons from the Channel Catfish 127:173
Momchilova-Pankova, A.B., *see* Koshlukova, S.E., et al. 127:113
Montana, V., *see* Loew, L.M., et al. 130:1
Montrose, M.H., *see* Zimolo, Z., et al. 126:19
Morad, M., *see* Mitra, R.L. 122:33
Morduchowicz, G.A., Sheikh-Hamad, D., Dwyer, B.E., Stern, N., Jo, O.D., Yanagawa, N.: Angiotensin II Directly Increases Rabbit Renal Brush-Border Membrane Sodium Transport: Presence of Local Signal Transduction System 122:43
Moriyama, T., *see* Furlong, T.J., et al. 123:269
Morris, C.E., *see* Vandorpe, D.H. 127:205
Mrkic, B., Forgo, J., Murer, H., Helmle-Kolb, C.: Apical and Basolateral Na/H Exchange in Cultured Murine Proximal Tubule Cells (MCT): Effect of Parathyroid Hormone (PTH) 130:205
Mller, H., *see* Wood, P.G., et al. 127:139
Mummert, H., Gradmann, D.: Action Potentials in *Acetabularia*: Measurement and Simulation of Voltage-Gated Fluxes 124:265
Mummert, H., Gradmann, D.: Ion Fluxes in *Acetabularia*: Vesicular Shuttle 124:255
Murer, H., *see* Casavola, V., et al. 130:105
Murer, H., *see* Mrkic, B., et al., 130:205
Murer, H., *see* Reshkin, S.J., et al. 124:227
Murer, H., *see* Reshkin, S.J., et al. 126:194
Murer, H., *see* Zimolo, Z., et al. 126:19
Myers, R.S., Townsend, D., Maloy, S.: Dissecting the Molecular Mechanism of Ion-Solute Cotransport: Substrate Specificity Mutations in the *putP* Gene Affect the Kinetics of Proline Transport 121:201
Nargeot, J., Dascal, N., Lester, H.A.: Heterologous Expression of Calcium Channels 126:97
Nash, G.B., *see* Tilley, L., et al. 121:59
Nelson, D.J., Jow, B., Jow, F: Lipopolysaccharide Induction of Outward Potassium Current Expression in Human Monocyte-Derived Macrophages: Lack of Correlation with Secretion 125:207
Neutra, M.R., *see* Schaerer, E., et al. 123:93
Neville, D.M., Jr., *see* Akeson, M., et al. 125:81
Nielsen, R., *see* Andersen, H. 126:235
Nol, J., Tejedor, A., Vinay, P., Laprade, R.: Substrate-Induced Modulation of ATP Turnover in Dog and Rabbit Proximal Tubules 128:205
Nomura, K., Sokabe, M.: Anion Channels from Rat Brain Synaptosomal Membranes Incorporated into Planar Bilayers 124:53
Núñez de Castro, I., *see* Luque, P., et al. 123:247
O'Brien, T.G., *see* Civan, M.M., et al. 121:37
O'Neil, R.G., *see* McCarty, N.A. 123:149
O'Neil, R.G., *see* McCarty, N.A. 123:161
Offner, F.F.: Ion Flow through Membranes and the Resting Potential of Cells 123:171
Ogata, N., Tatebayashi, H.: Slow Inactivation of Tetrodotoxin-Insensitive Na^+ Channels in Neurons of Rat Dorsal Root Ganglia 129:71
Ohtsuyama, M., *see* Suzuki, Y., et al. 123:33
Okada, Y., *see* Kotera, T., et al. 124:43
Olea, R.S., Pasantes-Morales, H., Lázaro, A., Cereijido, M.: Osmolarity-Sensitive Release of Free Amino Acids from Cultured Kidney Cells (MDCK) 121:1
Oler, A., *see* Civan, M.M., et al. 121:37
Olivotto, M., *see* Arcangeli, A., et al. 126:123
Ondrias, K., *see* Lee, Y.S., et al. 122:155
Orlov, S.N., Resink, T.J., Bernhardt, J., Buhler, F.R.: Volume-Dependent Regulation of Sodium and Potassium Fluxes in Cultured Vascular Smooth Muscle Cells: Dependence on Medium Osmolality and Regulation by Signalling Systems 129:199
Orsenigo, M.N., Tosco, M., Faelli, A.: Cl/HCO_3 Exchange in the Basolateral Membrane Domain of Rat Jejunal Enterocyte 124:13
Pahapill, P.A., Schlichter, L.C.: Cl^- Channels in Intact Human T Lymphocytes 125:171
Palfrey, H.C., *see* Hedge, R.S. 126:27
Palma, A.L., Wang, H.H.: Molecular Environment of the Phencyclidine Binding Site in the Nicotinic Acetylcholine Receptor Membrane 122:143
Palmer, L.G., *see* Silver, R.B., et al. 125:13
Palti, Y., *see* Kra-Oz, Z., et al. 129:189
Pang, P.K.T., *see* Schoenmakers, T.J.M., et al. 127:161
Pantoja, O., Dainty, J., Blumwald, E.: Cytoplasmic Chloride Regulates Cation Channels in the Vacuolar Membrane of Plant Cells 125:219
Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M.: Electrogenic Properties of the Cloned Na^+/Glucose Cotransporter: I. Voltage-Clamp Studies 125:49
Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M.: Electrogenic Properties of the Cloned Na^+/Glucose Cotransporter: II.

A Transport Model under Nonrapid Equilibrium Conditions 125:63
Parsey, R.V., *see* Sala, S., et al. 122:177
Pasantes-Morales, H., *see* Olea, R.J., et al. 121:1
Passow, H., *see* Wood, P.G., et al. 127:139
Pasternak, C.A., *see* Korchev, Y.E., et al. 127:195
Pastor-Anglada, M., *see* Ruiz-Montasell, B., et al. 128:227
Paul, E., Hurtubise, Y., LeBel, D.: Purification and Characterization of the Apical Plasma Membrane of the Rat Pancreatic Acinar Cell 127:129
Payet, M.D., *see* Durroux, T., et al. 129:145
Pearce, S.F.A., Zadunaisky, J.A.: Characterization of BADS-Binding Proteins in Epithelial Plasma Membranes 123:235
Peracchia, C.: Effects of the Anesthetics Heptanol, Halothane and Isoflurane on Gap Junction Conductance in Crayfish Septate Axons: A Calcium- and Hydrogen-Independent Phenomenon Potentiated by Caffeine and Theophylline, and Inhibited by 4-Aminopyridine 121:67
Peracchia, C., *see* Shen, L., et al. 124:21
Peskoff, A., Post, J.A., Langer, G.A.: Sarcolemmal Calcium Binding Sites in Heart: II. Mathematical Model for Diffusion of Calcium Released from the Sarcoplasmic Reticulum into the Diadic Region 129:59
Peter-Riesch, B., *see* Hopkins, W.F., et al. 129:287
Petersen, O.H., *see* Thorn, P. 124:63
Peterson-Yantorno, K., *see* Civan, M.M., et al. 121:37
Phang, J.M., *see* Mixson, A.J. 121:269
Phillips, J.E., *see* Thomson, R.B. 125:133
Pick, U., *see* Sekler, I., et al. 121:51
Pollard, C.E., Harris, A., Coleman, L., Argent, B.E.: Chloride Channels on Epithelial Cells Cultured from Human Fetal Epididymis 124:275
Pollard, H.B., *see* Arispe, N., et al. 130:191
Pollard, H.B., *see* Ceña, V., et al. 122:23
Pollard, H.B., *see* Fiedler, J.L., et al. 127:21
Popot, J.-L., Dinh, D.P., Dautigny, A.: Erratum 123:278
Popp, R., *see* Hoyer, J., et al. 123:55
Porta, C., *see* Cremaschi, D., et al. 129:221
Post, J.A., Langer, G.A.: Sarcolemmal Calcium Binding Sites in Heart: I. Molecular Origin in "Gas-Dissected" Sarcolemma 129:49
Post, J.A., *see* Peskoff, A., et al. 129:59
Potapyeva, N.N., *see* Zhorov, B.S., et al. 121:119
Prendergast, F.G., *see* Abu-Ghazaleh, R.I., et al. 128:153
Pressel, D.M., Misler, S.: Role of Voltage-Dependent Ionic Currents in Coupling Glucose Stimulation to Insulin Secretion in Canine Pancreatic Islet B-Cells 124:239
Priel, Z., *see* Weiss, T., et al. 127:185
Prins, H.B.A., *see* Maathuis, F.J.M. 122:251
Prins, H.B.A., *see* Miedema, H., et al. 128:63
Przywara, D.A., Bhave, S.V., Bhave, A., Chowdhury, P.S., Wakade, T.D., Wakade, A.R.: Activation of K^+ Channels by Lanthanum Contributes to the Block of Transmitter Release in Chick and Rat Sympathetic Neurons 125:155
Purcell, R.K., *see* Wills, N.K., et al. 125:273
Purves, R.D., *see* Bowler, J.M., et al. 123:115
Quandt, F.N., *see* Im, M.B. 130:115
Quinton, P.M., *see* Reddy, M.M. 130:49
Racette, K.J., *see* Gabriel, S.E., et al. 129:323
Racker, E.: Salvador E. Luria (1912–1991), a Unique Human Being 122:191
Rae, J.L., Farrugia, G.: Whole-Cell Potassium Current in Rabbit Corneal Epithelium Activated by Fenamates 129:81
Rae, J.L., *see* Farrugia, G. 129:99
Rae, J.L., *see* Watsky, M.A., et al. 128:123
Rakowski, R.F., Vasilets, L.A., LaTona, J., Schwarz, W.: A Negative Slope in the Current-Voltage Relationship of the Na^+/K^+ Pump in *Xenopus* Oocytes Produced by Reduction of External $[K^+]$ 121:177
Reddy, M.M., Quinton, P.M.: cAMP Activation of CF-Affected Cl^- Conductance in Both Cell Membranes of an Absorptive Epithelium 130:49
Reed, K.E., *see* Beyer, E.C., et al. 127:69
Reeves, W.B., *see* Winters, C.J., et al. 122:89
Reeves, W.B., *see* Winters, C.J., et al. 128:27
Rennie, M.J., *see* Taylor, P.M., et al. 128:181
Reshkin, S.J., Forgo, J., Murer, H.: Apical and Basolateral Effects of PTH on OK Cells: Transport Inhibition, Messenger Production, Effects of Pertussis Toxin, and Interaction with a PTH Analog 124:227
Reshkin, S.J., Forgo, J., Murer, H.: Erratum 126:194
Reshkin, S.J., *see* Casavola, V., et al. 130:105
Resink, T.J., *see* Orlov, S.N., et al. 129:199
Restrepo, D., *see* Miyamoto, T., et al. 127:173
Riach, R., *see* Williams, M.R., et al. 129:179
Rick, R.: Intracellular Ion Concentrations in the Isolated Frog Skin Epithelium: Evidence for Different Types of Mitochondria-Rich Cells 127:227
Ripoche, P., *see* van der Goot, F.G., et al. 128:133
Robello, M., *see* Carignani, C., et al. 122:259
Robertson, E., *see* Taylor, P.M., et al. 128:181
Rogart, R.B., *see* Satin, J., et al. 130:11
Rojas, E., *see* Arispe, N., et al. 130:191
Rojas, E., *see* Ceña, V., et al. 122:23
Rojas, E., *see* Fiedler, J.L., et al. 127:21
Ronquist, G., *see* Christensen, H.N. 127:1
Roper, S.D., *see* McBride, D.W., Jr. 124:85
Rose, B., *see* Mehta, P.P., et al. 124:207
Rosenberg, M.D., *see* Markin, V.S., et al. 126:137
Roy, G., Malo, C.: Activation of Amino Acid Diffusion by a Volume Increase in Cultured Kidney (MDCK) Cells 130:83
Roy, G., Wierzbicki, W., Sauvé, R.: Membrane Transport Models with Fast and Slow Reactions: General Analytical Solution for a Single Relaxation 123:105
Roy, G., *see* Banderali, U. 126:219
Ruiz-Montasell, B., Casado, F.J., Felipe, A., Pastor-Anglada, M.: Uridine Transport in Basolateral Plasma Membrane Vesicles from Rat Liver 128:227
Russo, J.J., *see* Cayanis, E., et al. 125:163
Ryan, M.P., *see* Faller, D. 130:227
Sachs, G., *see* Mayer, E.A., et al. 125:107
Sachs, G., *see* Supplisson, S., et al. 123:209
Sachs, G., *see* Wilkes, J.M., et al. 122:97
Sinz, J.A.G., *see* Balda, M.S., et al. 122:193
Sala, S., Parsey, R.V., Cohen, A.S., Matteson, D.R.: Analysis and Use of the Perforated Patch Technique for Recording Ionic Currents in Pancreatic β-Cells 122:177
Salama, G., *see* Loew, L.M., et al. 130:1
Salhany, J.M.: Measurement of Exofacially Reactive Lysines on Human Erythrocyte Band 3 Using Pyridoxal 5′-Phosphate (Letter) 121:91
Samman, G., *see* Suzuki, Y., et al. 123:33
Sammar, M., Spira, G., Meiri, H.: Depolarization Exposes the Voltage Sensor of the Sodium Channels to the Extracellular Region 125:1
Samorì, B., Lenaz, G., Battino, M., Marconi, G., Domini, I.: On Coenzyme Q Orientation in Membranes: A Linear Dichroism Study of Ubiquinones in a Model Bilayer 128:193
Sanchez, J.A., *see* Lizardi, L., et al. 129:167
Sancho, M.J., *see* Ibarrola, I., et al. 125:185

Sansom, S.C., Carosi, S.L.: Properties of Single- and Double-Barreled Cl Channels of Shark Rectal Gland in Planar Bilayers 126:67
Sarkadi, B., Tordai, A., Homolya, L., Scharff, O., Gárdos, G.: Calcium Influx and Intracellular Calcium Release in Anti-CD3 Antibody-Stimulated and Thapsigargin-Treated Human T Lymphoblasts 123:9
Sartor, P., Dufy-Barbe, L., Vacher, P., Dufy, B.: Calcium-Activated Chloride Conductance of Lactotrophs: Comparison of Activation in Normal and Tumoral Cells during Thyrotropin-Releasing-Hormone Stimulation 126:39
Satin, J., Kyle, J.W., Chen, M., Rogart, R.B., Fozzard, H.A.: The Cloned Cardiac Na Channel α-Subunit Expressed in *Xenopus* Oocytes Show Gating and Blocking Properties of Native Channels 130:11
Sato, F., *see* Suzuki, Y., et al. 123:33
Sato, K., *see* Suzuki, Y., et al. 123:33
Sauvé, R., *see* Roy, G., et al., 123:105
Sauvé, R., *see* Thuringer, D. 130:125
Sauvé, R., *see* Thuringer, D. 130:139
Sawyer, W.H., *see* Tilley, L., et al. 121:59
Schaerer, E., Neutra, M.R., Kraehenbuhl, J.-P.: Molecular and Cellular Mechanisms Involved in Transepithelial Transport 123:93
Scharff, J., *see* Akeson, M., et al. 125:81
Scharff, O., *see* Sarkadi, B., et al. 123:9
Scharschmidt, B.F., *see* Fitz, J.G., et al. 122:1
Schlichter, L.C., *see* Pahapill, P.A. 125:171
Schmidt, H., *see* Krippeit-Drews, P. 129:211
Schöneider, M.F., *see* Corbett, A.M., et al. 128:165
Schoenmakers, T.J.M., Klaren, P.H.M., Flik, G., Lock, R.A.C., Pang, P.K.T., Bonga, S.E.W.: Actions of Cadmium on Basolateral Plasma Membrane Proteins Involved in Calcium Uptake by Fish Intestine 127:161
Schönknecht, G., Althoff, G., Junge, W.: Dimerization Constant and Single-Channel Conductance of Gramicidin in Thylakoid Membranes 126:265
Schultze, R., *see* Draber, S., et al. 123:183
Schulz, I., *see* Zeuzem, S., et al. 125:231
Schürholz, Th., Wilimzig, M., Katsiou, E., Eichenlaub, R.: Anion Channel Forming Activity from the Plant Pathogenic Bacterium *Clavibacter michiganense ssp. nebraskense* 123:1
Schwartz, J.-L., *see* Fournier, L., et al. 129:267
Schwarz, W., *see* Rakowski, R.F., et al. 121:177
Schwarz, W., *see* Vasilets, L.A. 125:119
Scott, D., *see* Mayer, E.A., et al. 125:107
Scott, D.R., *see* Wilkes, J.M., et al. 122:97
Scuka, M., *see* Zorec, R., et al. 125:41
Seigneur, A., *see* van der Goot, F.G., et al. 128:133
Sekler, I., Gläser, H.U., Pick, U.: Characterization of a Plasma Membrane H^+-ATPase from the Extremeiy Acidophilic Alga *Dunaliella acidophila* 121:51
Serdyuk, S.E., *see* Zhorov, B.S., et al. 121:119
Shalloway, D., *see* Mehta, P.P., et al. 124:207
Sharp, C.M., *see* Akeson, M., et al. 125:81
Shavnin, S.A., *see* Dzgnes, N. 128:71
Shear, J.L., *see* Bullock, J.O., et al. 128:1
Sheikh-Hamad, D., *see* Morduchowicz, G.A., et al. 122:43
Shen, L., Shrager, P., Girsch, S.J., Donaldson, P.J., Peracchia, C.: Channel Reconstitution in Liposomes and Planar Bilayers with HPLC-Purified MIP26 of Bovine Lens 124:21
Sherstobitov, A.O., *see* Skulskii, I.A., et al. 130:219
Shipley, A., *see* Holtug, K., et al. 122:215
Shoshan-Barmatz, V., *see* Weiss, T., et al. 127:185
Shrager, P., *see* Shen, L., et al. 124:21
Siemen, D., *see* Klitsch, T. 122:69
Silver, R.B., Frindt, G., Palmer, L.G.: Regulation of Principal Cell pH by Na/H Exchange in Rabbit Cortical Collecting Tubule 125:13
Simon, S.M., *see* Lew, D.J. 123:261
Simons, T.J.B.: Calcium-Dependent Zinc Efflux in Human Red Blood Cells 123:73
Simons, T.J.B.: Intracellular Free Zinc and Zinc Buffering in Human Red Blood Cells 123:63
Sims, S.M., *see* Kelly, M.E.M., et al. 126:171
Singer, S.J.: The Structure and Function of Membranes—A Personal Memoir 129:3
Skadhauge, E., *see* Holtug, K., et al. 122:215
Skok, V.I., *see* Zhorov, B.S., et al. 121:119
Skulskii, I.A., Gusev, G.P., Sherstobitov, A.O., Manninen, V.: Anion-Dependent Transport of Thallous Ions through Human Erythrocyte Membrane 130:219
Smith, E.F., *see* Mazzanti, M., et al. 121:189
Smith, J.B., *see* Lyu, R.-M., et al. 124:73
Smith, L., *see* Lyu, R.-M., et al. 124:73
Smolen, P., Keizer, J.: Slow Voltage Inactivation of Ca^{2+} Currents and Bursting Mechanisms for the Mouse Pancreatic Beta-Cell 127:9
Snitsarev, V.A., *see* Tepikin, A.V., et al. 123:43
Sokabe, M., *see* Nomura, K. 124:53
Solomon, A.K., *see* Janoshazi, A., et al. 123:191
Sorbi, R.T., *see* Caretta, A., et al. 122:203
Sovak, M., *see* Wood, P.G., et al. 127:139
Spalding, B.C., Taber, P., Swift, J.G., Horowicz, P.: Response of Chloride Efflux from Skeletal Muscle of *Rana pipiens* to Changes of Temperature and Membrane Potential and Diethylpyrocarbonate Treatment 123:223
Spira, G., *see* Kra-Oz, Z., et al. 129:189
Spira, G., *see* Sammar, M., et al. 125:1
Spring, K.R., *see* Furlong, T.J., et al. 123:269
Stahl, F., Lepple-Wienhues, A., Koch, M., Wiederholt, M.: Na^+-Dependent HCO_3^- Transport and Na^+/H^+ Exchange Regulate pH_i in Human Ciliary Muscle Cells 127:215
Stein, P.J., *see* Caretta, A., et al. 122:203
Steinbach, J.H., *see* Lingle, C.J., et al. 126:195
Sten-Knudsen, O., *see* Holtug, K., et al. 122:215
Stern, N., *see* Morduchowicz, G.A., et al. 122:43
Strobel, R., *see* Markin, V.S., et al. 126:137
Stürmer, W., Bühler, R., Apell, H.J., Läuger, P.: Charge Translocation by the Na,K-Pump: II. Ion Binding and Release at the Extracellular Face 121:163
Stürmer, W., *see* Bühler, R., et al. 121:141
Subramani, S.: Targeting of Proteins into the Peroxisomal Matrix 125:99
Sun, X.P, *see* Mayer, E.A., et al. 125:107
Supplisson, S., Loo, D.D.F., Sachs, G.: Diversity of K^+ Channels in the Basolateral Membrane of Resting *Necturus* Oxyntic Cells 123:209
Supplisson, S., *see* Parent, L., et al. 125:49
Supplisson, S., *see* Parent, L., et al. 125:63
Suzuki, Y., Ohtsuyama, M., Samman, G., Sato, F., Sato, K.: Ionic Basis of Methacholine-Induced Shrinkage of Dissociated Eccrine Clear Cells 123:33
Swift, J.G., *see* Spalding, B.C., et al. 123:223
Tabares, L., Mazzanti, M., Clapham, D.E.: Chloride Channels in the Nuclear Membrane 123:49
Taber, P., *see* Spalding, B.C., et al. 123:223
Tang, J.M., *see* Wang, J., et al. 130:163
Tatebayashi, H., *see* Ogata, N. 129:71
Taylor, P.M., Mackenzie, B., Hundal, H.S., Robertson, E., Re-

nnie, M.J.: Transport and Membrane Binding of the Glutamine Analogue 6-Diazo-5-oxo-L-Norleucine (DON) in *Xenopus laevis* Oocytes 128:181
Teeter, J.H., *see*, Miyamoto, T., et al. 127:173
Tejedor, A., *see* Noël, J., et al. 128:205
Tepikin, A.V., Kostyuk, P.G., Snitsarev, V.A., Belan, P.V.: Extrusion of Calcium from a Single Isolated Neuron of the Snail *Helix pomatia* 123:43
Terry, B.R., Tyerman, S.D., Findlay, G.P.: Ion Channels in the Plasma Membrane of *Amaranthus* Protoplasts: One Cation and One Anion Channel Dominate the Conductance 121: 223
Thévenod, F., Chathadi, K.V., Jiang, B., Hopfer, U.: ATP-Sensitive K^+ Conductance in Pancreatic Zymogen Granules: Block by Glyburide and Activation by Diazoxide 129:253
Thiel, G., MacRobbie, E.A.C., Blatt, M.R.: Membrane Transport in Stomatal Guard Cells: The Importance of Voltage Control 126:1
Thieleczek, R., *see* Benterbusch, R., et al. 129:237
Thomson, R.B., Phillips, J.E.: Electrogenic Proton Secretion in the Hindgut of the Desert Locust, *Schistocerca gregaria* 125:133
Thorn, P., Petersen, O.H.: Activation of Voltage-Sensitive Ca^{2+} Currents by Vasopressin in an Insulin-Secreting Cell Line 124:63
Thornhill, W.B., *see* Ivey, S., et al. 121:215
Thuringer, D., Sauvé, R.: A Patch-Clamp Study of the Ca^{2+} Mobilization from Internal Stores in Bovine Aortic Endothelial Cells. II. Effects of Thapsigargin on the Cellular Ca^{2+} Homeostasis 130:139
Thuringer, D., Sauvé, R.: A Patch-Clamp Study of the Ca^{2+} Mobilization from Internal Stores in Bovine Aortic Endothelial Cells. I. Effects of Caffeine on Intracellular Ca^{2+} Stores 130:125
Tilley, L., Nash, G.B., Jones, G.L., Sawyer, W.H.: Decreased Rotational Diffusion of Band 3 in Melanesian Ovalocytes from Papua, New Guinea 121:59
Tinker, A., Lindsay, A.R.G., Williams, A.J.: Block of the Sheep Cardiac Sarcoplasmic Reticulum Ca^{2+}-Release Channel by Tetra-alkyl Ammonium Cations 127:149
Tirindelli, R.: *see* Caretta, A., et al. 122:203
Tordai, A., *see* Sarkadi, B., et al. 123:9
Torres-Marquez, M.E., *see* Balda, M.S., et al. 122:193
Tosco, M., *see* Orsenigo, M.N., et al. 124:13
Townsend, D., *see* Myers, R.S., et al. 121:201
Trueba, M., *see* Ibarrola, I., et al. 125:185
Tsong, T.Y., *see* Markin, V.S., et al. 126:137
Tyerman, S.D., *see* Terry, B.R., et al. 121:223
Ueda, S., *see* Kotera, T., et al. 124:43
Vaandrager, A.B., *see* Bajnath, R.B., et al. 127:81
Vaca, L., Kunze, D.L.: Anion and Cation Permeability of a Large Conductance Anion Channel in the T84 Human Colonic Cell Line 130:241
Vacher, P., *see* Sartor, P., et al. 126:39
Valant, P.A., Adjei, P.N., Haynes, D.H.: Rapid Ca^{2+} Extrusion Via the Na^+/Ca^{2+} Exchanger of the Human Platelet 130:63
van der Goot, F.G., Seigneur, A., Gaucher, J.-C., Ripoche, P.: Flow Cytometry and Sorting of Amphibian Bladder Endocytic Vesicles Containing ADH-Sensitive Water Channels 128: 133
Van Houten, J.L., Cote, B.L., Zhang, J., Baez, J., Gagnon, M.L.: Erratum 124:94
Vandorpe, D.H., Morris, C.E.: Stretch Activation of the *Aplysia* S-Channel 127:205
Varanda, W.A., *see* Branco, L.G.S. 127:121
Vasilets, L.A., Schwarz, W.: Regulation of Endogenous and Expressed Na^+/K^+ Pumps in *Xenopus* Oocytes by Membrane Potential and Stimulation of Protein Kinases 125:119
Vasilets, L.A., *see* Rakowski, R.F., et al. 121:177
Villaz, M., *see* Vivaudou, M.B., et al. 122:165
Villegas, R., *see* Miguel, V., et al. 129:37
Vinay, P., *see* Noël, J., et al. 128:205
Vivaudou, M.B., Arnoult, C., Villaz, M.: Skeletal Muscle ATP-Sensitive K^+ Channels Recorded from Sarcolemmal Blebs of Split Fibers: ATP Inhibition is Reduced by Magnesium and ADP 122:165
Vogel, W., *see* Koh, D.S., et al. 130:149
Wade, J.B., *see* Corbett, A.M., et al. 128:165
Wakade, A.R., *see* Przywara, D.A. et al. 125:155
Wakade, T.D., *see* Przywara, D.A. et al. 125:155
Walker, N.A., *see* Fairley, K., et al. 121:11
Wallace, B.A., *see* Woolley, G.A. 129:109
Wang, H.H., *see* Palma, A.L. 122:143
Wang, J., Tang, J.M., Eisenberg, R.S.: A Calcium Conducting Channel Akin to a Calcium Pump 130:163
Wanke, E., *see* Arcangeli, A., et al. 126:123
Watsky, M.A., Cooper, K., Rae, J.L.: Transient Outwardly Rectifying Potassium Channel in the Rabbit Corneal Endothelium 128:123
Webb, S.F., *see* Williams, M.R., et al. 129:179
Weisiger, R.A., *see* Fitz, J.G., et al. 122:1
Weiss, H., Lang, F.: Ion Channels Activated by Swelling of Madin Darby Canine Kidney (MDCK) Cells 126:109
Weiss, T., Gheber, L., Shoshan-Barmatz, V., Priel, Z.: Possible Mechanism of Ciliary Stimulation by Extracellular ATP: Involvement of Calcium-Dependent Potassium Channels and Exogenous Ca^{2+} 127:185
Westphale, E.M., *see* Beyer, E.C., et al. 127:69
Whitfield, J.F., *see* Fournier, L., et al. 129:267
Wiederholt, M., *see* Stahl, F., et al. 127:215
Wierzbicki, W., *see* Roy, G., et al. 123:105
Wilimzig, M., *see* Schürholz, Th., et al. 123:1
Wilkes, J., *see* Mayer, E.A., et al. 125:107
Wilkes, J.M., Hirst, B.H.: Amiloride Sensitivity of Proton-Conductive Pathways in Gastric and Intestinal Apical Membrane Vesicles 126:115
Wilkes, J.M., Kajimura, M., Scott, D.R., Hersey, S.J., Sachs, G.: Muscarinic Responses of Gastric Parietal Cells 122:97
Williams, A.J., *see* Alton, E.W.F.W. 128:141
Williams, A.J., *see* Tinker, A., et al. 127:149
Williams, M.R., Duncan, G., Croghan, P.C., Riach, R., Webb, S.F.: pH Regulation in Tissue-Cultured Bovine Lens Epithelial Cells 129:179
Wills, N.K., Millinoff, L.P., Crowe, W.E.: Na^+ Channel Activity in Cultured Renal (A6) Epithelium: Regulation by Solution Osmolarity 121:79
Wills, N.K., Purcell, R.K., Clausen, C.: Na^+ Transport and Impedance Properties of Cultured Renal (A6 and 2F3) Epithelia 125:273
Winters, C.J., Reeves, W.B., Andreoli, T.E.: Cl^- Channels in Basolateral Renal Medullary Membrane Vesicles: IV. Analogous Channel Activation by Cl^- or cAMP-Dependent Protein Kinase 122:89
Winters, C.J., Reeves, W.B., Andreoli, T.E.: Cl^- Channels in Basolateral Renal Medullary Vesicles: V. Comparison of Basolateral mTALH Cl^- Channels with Apical Cl^- Channels from Jejunum and Trachea 128:27
Wood, P.G., Müller, H., Sovak, M., Passow, H.: Role of Lys 558 and Lys 869 in Substrate and Inhibitor Binding to the Murine Band 3 Protein: A Study of the Effects of Site-Directed

Mutagenesis of the Band 3 Protein Expressed in the Oocytes of *Xenopus laevis* 127:139
Woolley, G.A., Wallace, B.A.: Model Ion Channels: Gramicidin and Alamethicin 129:109
Wright, E.M., *see* Parent, L., et al. 125:49
Wright, E.M., *see* Parent, L., et al. 125:63
Wright, S.H., Wunz, T.M., Wunz, T.P.: A Choline Transporter in Renal Brush-Border Membrane Vesicles: Energetics and Structural Specificity 126:51
Wu, C.F., *see* Gorczyca, M.F. 121:237
Wu, M.M., Civan, M.M.: Voltage Dependence of Current through the Na,K-Exchange Pump of *Rana* Oocytes 121:23
Wu, Y., *see* Cayanis, E., et al. 125:163
Wunder, U.R., Colombini, M.: Patch Clamping VDAC in Liposomes Containing Whole Mitochondrial Membranes 123:83
Wunz, T.M., *see* Wright, S.H., et al. 126:51
Wunz, T.P., *see* Wright, S.H., et al. 126:51
Wuttke, W.A., Berry, M.S.: Modulation of Inwardly Rectifying Na^+-K^+ Channels by Serotonin and Cyclic Nucleotides in Salivary Gland Cells of the Leech, *Haementeria* 127:57
Xia, S.-L., *see* Ferrier, J., et al. 123:255
Xie, M.-H., *see* Fitz, J.G., et al. 122:1
Yanagawa, N., *see* Morduchowicz, G.A., et al., 122:43
Zadunaisky, J.A., *see* Pearce, S.F.A. 123:235
Zampighi, G.A., *see* Ehring, G.R., et al. 126:75
Zampighi, G.A., *see* Miller, A.G., et al. 128:91
Zeevi, A., Margalit, R.: Lithium-Selective Permeation through Lipid Bilayer Membranes Mediated by a Di-Imide Ionophore with Nonsymmetrical Imide Substituents (ETH1810) 121:133
Zeuzem, S., Zimmermann, P., Schulz, I.: Association of a 19- and a 21-kDa GTP-Binding Protein to Pancreatic Microsomal Vesicles is Regulated by the Intravesicular pH Established by a Vacuolar-Type H^+-ATPase 125:231
Zhang, G.H., Cragoe, E.J., Jr., Melvin, J.E.: Regulation of Cytoplasmic pH in Rat Sublingual Mucous Acini at Rest and During Muscarinic Stimulation 129:311
Zhang, J., *see* Van Houten, J.L., et al. 124:94
Zhorov, B.S., Brovtsyna, N.B., Gmiro, V.E., Lukomskaya, N.Y., Serdyuk, S.E., Potapyeva, N.N., Magazanik, L.G., Kurenniy, D.E., Skok, V.I.: Dimensions of the Ion Channel in Neuronal Nicotinic Acetylcholine Receptor as Estimated from Analysis of Conformation-Activity Relationships of Open-Channel Blocking Drugs 121:119
Zimmermann, P., *see* Zeuzem, S., et al. 125:231
Zimolo, Z., Montrose, M.H., Murer, H.: H^+ Extrusion by an Apical Vacuolar-Type H^+-ATPase in Rat Renal Proximal Tubules 126:19
Zorec, R., Scuka, M., Korda, M.: Effects of Irreversible and Reversible Cholinesterase Inhibitors on Single Acetylcholine-Activated Channels 125:41
Zuazaga, C., *see* Lizardi, L., et al. 129:167
Zweifach, A., Desir, G.V., Aronson, P.S., Giebisch, G.: Inhibition of Ca-Activated K^+ Channels from Renal Microvillus Membrane Vesicles by Amiloride Analogs 128:115

Subject Index—Volumes 121–130

A23187
–, intracellular free zinc and zinc buffering in human red blood cells, Simons, T.J.B. 123:63
A431 cells
–, variety of Ca^{2+}-permeable channels in human carcinoma A431 cells, Mozhayeva, G.N., Naumov, A.P., Kuryshev, Y.A. 124:113
A6 cells
–, basolateral membrane potassium conductance of A6 cells, Broillet, M.C., Horisberger, J.D. 124:1
–, Na^+ channel activity in cultured renal (A6) epithelium: regulation by solution osmolarity, Wills, N.K., Millinoff, L.P., Crowe, W.E. 121:79
–, Na^+/H^+-exchange in A6 cells: polarity and vasopressin regulation, Casavola, V., Guerra, L., Helmle-Kolb, C., Reshkin, S.J., Murer, H. 130:105
–, Na^+ transport and impedance properties of cultured renal (A6 and 2F3) epithelia, Wills, N.K., Purcell, R.K., Clausen, C. 125:273
A7r5 cell line
–, molecular cloning and expression of rat connexin40, a gap junction protein expressed in vascular smooth muscle, Beyer, E.C., Reed, K.E., Westphale, E.M., Kanter, H.L., Larson, D.M. 127:69
A-type channels
–, transient outwardly rectifying potassium channel in the rabbit corneal endothelium, Watsky, M.A., Cooper, K., Rae, J.L. 128:123
Abscisic acid
–, ion channel gating in plants: physiological implications and integration for stomatal function, Blatt, M.R. 124:95
–, membrane transport in stomatal guard cells: the importance of voltage control, Thiel, G., MacRobbie, E.A.C., Blatt, M.R. 126:1
Acetabularia
–, action potentials in *Acetabularia*: measurement and simulation of voltage-gated fluxes, Mummert, H., Gradmann, D. 124:265
–, ion fluxes in *Acetabularia*: Vesicular shuttle, Mummert, H., Gradmann, D. 124:255
Acetylcholine-activated channels
–, effects of irreversible and reversible cholinesterase inhibitors on single acetylcholine-activated channels, Zorec, R., Scuka, M., Kordas, M. 125:41
Acetylcholine receptor
–, activation of skeletal muscle nicotinic acetylcholine receptors, Lingle, C.J., Maconochie, D., Steinbach, J.H. 126:195
–, dimensions of the ion channel in neuronal nicotinic acetylcholine receptor as estimated from analysis of conformation-activity relationships of open-channel blocking drugs, Zhorov, B.S., Brovtsyna, N.B., Gmiro, V.E., Lukomskaya, N.Y., Serdyuk, S.E., Potapyeva, N.N., Magazanik, L.G., Kurenniy, D.E., Skok, V.I. 121:119
–, subunit requirements for *Torpedo* AChR channel expression: a specific role for the δ-subunit in voltage-dependent gating, Golino, M.D., Hamill, O.P. 129:297
Acid secretion
–, diversity of K^+ channels in the basolateral membrane of resting *Necturus* oxyntic cells, Supplisson, S., Loo, D.D.F., Sachs, G. 123:209
–, electrogenic proton secretion in the hindgut of the desert locust, *Schistocerca gregaria*, Thomson, R.B., Phillips, J.E. 125:133
–, muscarinic responses of gastric parietal cells, Wilkes, J.M., Kajimura, M., Scott, D.R., Hersey, S.J., Sachs, G. 122:97
–, whole-cell K^+ current activation in response to voltages and carbachol in gastric parietal cells isolated from guinea pig, Kotera, T., Hashimoto, A., Ueda, S., Okada, Y. 124:43
Acidification
–, regulation of cytoplasmic pH in rat sublingual mucous acini at rest and during muscarinic stimulation, Zhang, G.H., Cragoe, E.J., Jr., Melvin, J.E. 129:311
Acidophile
–, characterization of a plasma membrane H^+-ATPase from the extremely acidophilic alga *Dunaliella acidophila*, Sekler, I., Gläser, H.U., Pick, U. 121:51
Acinar cells
–, calcium release and internal calcium regulation in acinar cells of exocrine glands, Marty, A. 124:189
–, cytoplasmic Ca^{2+} signals evoked by activation of cholecystokinin receptors: Ca^{2+}-dependent current recording in internally perfused pancreatic acinar cells, Wakui, M., Kase, H., Petersen, O.H. 124:179
–, elevation of cytostolic $[Ca^{2+}]$ due to intracellular Ca^{2+} release retards carbachol stimulation of divalent cation entry in rat parotid gland acinar cells, Hiramatsu, Y., Baum, B.J., Ambudkar, I.S. 129:277
–, purification and characterization of the apical plasma membrane of the rat pancreatic acinar cell, Paul, E., Hurtubise, Y., LeBel, D. 127:129
–, regulation of cytoplasmic pH in rat sublingual mucous acini at rest and during muscarinic stimulation, Zhang, G.H., Cragoe, E.J., Jr., Melvin, J.E. 129:311
Action potential
–, action potentials in *Acetabularia*: measurement and simulation of voltage-gated fluxes, Mummert, H., Gradmann, D. 124:265
–, Ba^{2+}-induced action potentials in osteoblastic cells, Ferrier, J., Grygorczyk, C., Grygorczyk, R., Kesthely, A., Lagan, E., Xia, S.L. 123:255
–, noninvasive recording of receptor cell action potentials and sustained currents from single taste buds maintained in the tongue: the response to mucosal NaCl and amiloride, Avenet, P., Lindemann, B. 124:33
Acyl : CoA synthetase
–, phospholipid dependence of rat liver microsomal acyl : CoA synthetase and acyl-CoA : 1-acyl-*sn*-glycero-3-phosphocholine O-acyltransferase, Koshlukova, S.E., Momchilova-Pankova, A.B., Markovska, T.T., Koumanov, K.S. 127:113
Acyl-CoA : 1-acyl-*sn*-glycero-3-phosphocholine O-acyltransferase
–, phospholipid dependence of rat liver microsomal acyl : CoA synthetase and acyl-CoA : 1-acyl-*sn*-glycero-3-phosphocholine O-acyltransferase, Koshlukova, S.E., Momchilova-Pankova, A.B., Markovska, T.T., Koumanov, K.S. 127:113
Adenine-nucleotide channel regulation
–, two sites for adenine-nucleotide regulation of ATP-sensitive potassium channels in mouse pancreatic β-cells and HIT cells, Hopkins, W.F., Fatherazi, S., Peter-Riesch, B., Corkey, B.E., Cook, D.L 129:287
Adipocyte membranes
–, labeling of adipocyte membranes by sulfo-*N*-succinimidyl

derivatives of long-chain fatty acids: inhibition of fatty acid transport, Harmon, C.M., Luce, P., Beth, A.H., Abumrad, N.A. 121:261

ADP
–, skeletal muscle ATP-sensitive K^+ channels recorded from sarcolemmal blebs of split fibers: ATP inhibition is reduced by magnesium and ADP, Vivaudou, M.B., Arnoult, C., Villaz, M. 122:165
–, two sites for adenine-nucleotide regulation of ATP-sensitive potassium channels in mouse pancreatic β-cells and HIT cells, Hopkins, W.F., Fatherazi, S., Peter-Riesch, B., Corkey, B.E., Cook, D.L 129:287

Adrenaline
–, chloride channels on epithelial cells cultured from human fetal epididymis, Pollard, C.E., Harris, A., Coleman, L., Argent, B.E. 124:275

Aging
–, cation transport in vascular endothelial cells and aging, Adragna, N.C. 124:285

Alamethicin
–, model ion channels: gramicidin and alamethicin, Woolley, G.A., Wallace, B.A. 129:109

Alkalinization
–, K-induced alkalinization in all cell types of rabbit gastric glands: a novel K/H exchange mechanism, Hofer, A.M., Machen, T.E. 126:245

Amaranthus
–, ion channels in the plasma membrane of *Amaranthus* protoplasts: one cation and one anion channel dominate the conductance, Terry, B.R., Tyerman, S.D., Findlay, G.P. 121:223

Amiloride
–, amiloride sensitivity of proton-conductive pathways in gastric and intestinal apical membrane vesicles, Wilkes, J.M., Hirst, B.H. 126:115
–, inhibition of Ca-activated K^+ channels from renal microvillus membrane vesicles by amiloride analogs, Zweifach, A., Desir, G.V., Aronson, P.S., Giebisch, G. 128:115
–, intracellular ion concentrations in the isolated frog skin epithelium: evidence for different types of mitochondria-rich cells, Rick, R. 127:227
–, Na^+ channel activity in cultured renal (A6) epithelium: regulation by solution osmolarity, Wills, N.K., Millinoff, L.P., Crowe, W.E. 121:79
–, Na^+ dependent HCO_3^- transport and Na^+/H^+ exchange regulate pH_i in human ciliary muscle cells, Stahl, F., Lepple-Wienhues, A., Koch, M., Wiederholt, M. 127:215
–, Na^+ transport and impedance properties of cultured renal (A6 and 2F3) epithelia, Wills, N.K., Purcell, R.K., Clausen, C. 125:273
–, noninvasive recording of receptor cell action potentials and sustained currents from single taste buds maintained in the tongue: the response to mucosal NaCl and amiloride, Avenet, P., Lindemann, B. 124:33
–, regulation of principal cell pH by Na/H exchange in rabbit cortical collecting tubule, Silver, R.B., Frindt, G., Palmer, L.G. 125:13
–, toad bladder amiloride-sensitive channels reconstituted into planar lipid bilayers, Branco, L.G.S., Varanda, W.A. 127:121
–, urinary proteases degrade epithelial sodium channels, Lewis, S.A., Clausen, C. 122:77

Amino acid diffusion
–, activation of amino acid diffusion by a volume increase in cultured kidney (MDCK) cells, Roy, G., Malo, C. 130:83

Amino acid release
–, osmolarity-sensitive release of free amino acids from cultured kidney cells (MDCK), Olea, R.S., Pasantes-Morales, H., Lázaro, Cereijido, M. 121:1

Amino acid transport
–, membrane transport properties of L-2,4-diaminobutyrate revisited, Christensen, H.N., Ronquist, G. 127:1
–, transport and membrane binding of the glutamine analogue 6-diazo-5-oxo-L-norleucine (DON) in *Xenopus laevis* oocytes, Taylor, P.M., Mackenzie, B., Hundal, H.S., Robertson, E., Rennie, M.J. 128:181

4-Aminopyridine
–, a transient outward current dependent on external calcium in rat cerebellar granule cells, Carignani, C., Robello, M., Marchetti, C., Maga, L. 122:259
–, effects of the anesthetics heptanol, halothane and isoflurane on gap junction conductance in crayfish septate axons: a calcium- and hydrogen-independent phenomenon potentiated by caffeine and theophylline, and inhibited by 4-aminopyridine, Peracchia, C. 121:67

Amiodarone
–, identification of anion and cation pathways in the inner mitochondrial membrane by patch clamping of mouse liver mitoplasts, Antonenko, Y.N., Kinnally, K.W., Tedeschi, H. 124:151

Amphotericin B
–, basolateral membrane potassium conductance of A6 cells, Broillet, M.C., Horisberger, J.D. 124:1

Anesthetics
–, effects of the anesthetics heptanol, halothane and isoflurane on gap junction conductance in crayfish septate axons: a calcium- and hydrogen-independent phenomenon potentiated by caffeine and theophylline, and inhibited by 4-aminopyridine, Peracchia, C. 121:67

Angiotensin II
–, angiotensin II directly increases rabbit renal brush-border membrane sodium transport: presence of local signal transduction system, Morduchowicz, G.A., Sheikh-Hamad, D., Dwyer, B.E., Stern, N., Jo, O.D., Yanagawa, N. 122:43
–, angiotensin II, vasopressin and GTP[γ-S] inhibit inward-rectifying K^+ channels in porcine cerebral capillary endothelial cells, Hoyer, J., Popp, R., Meyer, J., Galla, H.J., Gögelein, H. 123:55
–, opposite effects of angiotensin II and the protein kinase C activator OAG on cardiac Na^+ channels, Benz, I., Herzig, J.W., Kohlhardt, M. 130:183

Anion channel-forming activity
–, anion channel forming activity from the plant pathogenic bacterium *Clavibacter michiganense ssp. nebraskense*, Schrholz, T., Wilimzig, M., Katsiou, E., Eichenlaub, R. 123:1

Anion channels
–, anion and cation permeability of a large conductance anion channel in the T84 human colonic cell line, Vaca, L., Kunze, D.L. 130:241
–, anion channels from rat brain synaptosomal membranes incorporated into planar bilayers, Nomura, K., Sokabe, M. 124:53
–, inner mitochondrial membrane anion channel is present in brown adipocytes but is not identical with the uncoupling protein, Klitsch, T., Siemen, D. 122:69
–, ion channels in the plasma membrane of *Amaranthus* protoplasts: one cation and one anion channel dominate the conductance, Terry, B.R., Tyerman, S.D., Findlay, G.P. 121:223

Anion exchange protein
–, conformational changes in human red cell membrane proteins induced by sugar binding, Janoshazi, A., Kifor, G., Solomon, A.K. 123:191
Anion exchanger
–, anion-dependent transport of thallous ions through human erythrocyte membrane, Skulskii, I.A., Gusev, G.P., Sherstobitov, A.O., Manninen, V. 130:219
Anion pathways
–, identification of anion and cation pathways in the inner mitochondrial membrane by patch clamping of mouse liver mitoplasts, Antonenko, Y.N., Kinnally, K.W., Tedeschi, H. 124:151
Anion transport
–, purification and characterization of the apical plasma membrane of the rat pancreatic acinar cell, Paul, E., Hurtubise, Y., LeBel, D. 127:129
Anion transport inhibitors
–, conformational changes in human red cell membrane proteins induced by sugar binding, Janoshazi, A., Kifor, G., Solomon, A.K. 123:191
Anomalous mole fraction effect
–, patch-clamp studies on the anomalous mole fraction effect of the K^+ channel in cytoplasmic droplets of *Nitella*: an attempt to distinguish between a multi-ion single-file pore and an enzyme kinetic model with lazy state, Draber, S., Schultze, R., Hansen, U.P. 123:183
Antiarrhythmic drugs
–, differential response of DPI-modified cardiac Na^+ channels to antiarrhythmic drugs: no flicker blockade by lidocaine, Benz, I., Kohlhardt, M. 126:257
–, responsiveness of cardiac Na^+ channels to antiarrhythmic drugs: the role of inactivation, Benz, I., Kohlhardt, M. 122:267
Antibodies
–, involvement of different S_4 parts in the voltage dependency of Na channel gating, Kra-Oz, Z., Spira, G., Palti, Y., Meiri, H. 129:189
Anticholinesterase drugs
–, effects of irreversible and reversible cholinesterase inhibitors on single acetylcholine-activated channels, Zorec, R., Scuka, M., Kordas, M. 125:41
Antidiuretic hormone (ADH)
–, flow cytometry and sorting of amphibian bladder endocytic vesicles containing ADH-sensitive water channels, van der Goot, F.G., Seigneur, A., Caucher, J.C., Ripoche, P. 128:133
Antipyrylazo III absorbance
–, extrusion of calcium from a single isolated neuron of the snail *Helix pomatia*, Tepikin, A.V., Kostyuk, P.G., Snitsarev, V.A., Belan, P.V. 123:43
Apical membrane
–, amiloride sensitivity of proton-conductive pathways in gastric and intestinal apical membrane vesicles, Wilkes, J.M., Hirst, B.H. 126:115
–, apical and basolateral Na/H exchange in cultured murine proximal tubule cells (MCT): effect of parathyroid hormone (PTH), Mrkic, B., Forgo, J., Murer, H., Helmle-Kolb, C. 130:205
–, Ca^{2+}-dependent chloride conductance in *Necturus* taste cells, McBride, D.W., Jr., Roper, S.D. 124:85
–, Na^+ transport and impedance properties of cultured renal (A6 and 2F3) epithelia, Wills, N.K., Purcell, R.K., Clausen, C. 125:273
–, cAMP activation of CF-affected Cl^- conductance in both cell membranes of an absorptive epithelium, Reddy, M.M., Quinton, P.M. 130:49
–, Cl^- channels in basolateral renal medullary vesicles: V. comparison of basolateral mTALH Cl^- channels with apical Cl^- channels from jejunum and trachea, Winters, C.J., Reeves, W.B., Andreoli, T.E. 128:27
–, factors affecting chloride conductance in apical membrane vesicles from human placenta, Faller, D., Ryan, M.P. 130:227
–, papaverine reduces the sodium permeability of the apical membrane and the potassium permeability of the basolateral membrane in isolated frog skin, Andersen, H., Nielsen, R. 126:235
–, purification and characterization of the apical plasma membrane of the rat pancreatic acinar cell, Paul, E., Hurtubise, Y., LeBel, D. 127:129
–, urinary proteases degrade epithelial sodium channels, Lewis, S.A., Clausen, C. 122:77
Apical membrane permeabilization technique
–, basolateral membrane potassium conductance of A6 cells, Broillet, M.C., Horisberger, J.D. 124:1
Aplysia nervous system
–, hyperosmotic media inhibit voltage-dependent calcium influx and peptide release in *Aplysia* neurons, Loechner, K.J., Knox, R.J., Connor, J.A., Kaczmarek, L.K. 128:41
–, stretch activation of the *Aplysia* S-channel, Vandorpe, D.H., Morris, C.E. 127:205
Arachidonic acid
–, activation of osmolyte efflux from cultured renal papillary epithelial cells, Furlong, T.J., Moriyama, T., Spring, K.R. 123:269
Arginine-vasopressin
–, angiotensin II, vasopressin and GTP[γ-S] inhibit inward-rectifying K^+ channels in porcine cerebral capillary endothelial cells, Hoyer, J., Popp, R., Meyer, J., Galla, H.J., Gögelein, H. 123:55
ATP
–, ATP activates a Ca^{2+}-dependent Cl^- current in the rat thyroid cell line, FRTL-5, Martin, S.C. 125:243
ATP-blockable K channels
–, analysis and use of the perforated patch technique for recording ionic currents in pancreatic β-cells, Sala, S., Parsey, R.V., Cohen, A.S., Matteson, D.R. 122:177
ATP secretion
–, quantitative analysis of depolarization-induced ATP release from mouse brain synaptosomes: external calcium dependent and independent processes, Fiedler, J.L., Pollard, H.B., Rojas, E. 127:21
ATP-sensitive K^+ channels
–, ATP-sensitive K^+ conductance in pancreatic zymogen granules: block by glyburide and activation by diazoxide, Thévenod, F., Chathadi, K.V., Jiang, B., Hopfer, U. 129:253
–, comparison of the properties of the ATP-sensitive K^+ channels of pancreatic β-cells of lean and obese (ob/ob) CC57BL/6J mice, Fournier, L., Bégin-Heick, N., Whitfield, J.F., Schwartz, J.L. 129:267
–, two sites for adenine-nucleotide regulation of ATP-sensitive potassium channels in mouse pancreatic β-cells and HIT cells, Hopkins, W.F., Fatherazi, S., Peter-Riesch, B., Corkey, B.E., Cook, D.L 129:287
ATP-stimulated transport
–, effect of sulfhydryl compounds on ATP-stimulated H^+ transport and Cl^- uptake in rabbit renal cortical endosomes, Hilden, S.A., Madias, N.E. 124:139

ATP turnover
–, substrate-induced modulation of ATP turnover in dog and rabbit proximal tubules, Noël, J., Tejedor, A., Vinay, P., Laprade, R. 128:205
ATPase
–, ion channel enzyme in an oscillating field, Markin, V.S., Liu, D., Gimsa, J., Strobel, R., Rosenberg, M.D., Tsong, T.Y. 126:137
ATPase inhibitors
–, effects of inhibitors of ion-motive ATPases on the plasma membrane potential of murine erythroleukemia cells, Arcangeli, A., Del Bene, M.R., Becchetti, A., Wanke, E., Olivotto, M. 126:123
Atya lanipes
–, sulfhydryl alkylating agents induce calcium current in skeletal muscle fibers of a crustacean (*Atya lanipes*), Lizardi, L., Garcia, M.C., Sanchez, J.A., Zuazaga, C. 129:167
Background currents
–, background calcium permeable channels in glomerulosa cells from adrenal gland, Durroux, T., Gallo-Payet, N., Bilodeau, L., Payet, M.D. 129:145
BADS binding proteins
–, characterization of BADS-binding proteins in epithelial plasma membranes, Pearce, S.F.A., Zadunaisky, J.A. 123:235
Bafilomycin
–, association of a 19- and a 21-kDa GTP-binding protein to pancreatic microsomal vesicles is regulated by the intravesicular pH established by a vacuolar-type H^+-ATPase, Zeuzem, S., Zimmermann, P., Schulz, I. 125:231
–, H^+ extrusion by an apical vacuolar-type H^+-ATPase in rat renal proximal tubules, Zimolo, Z., Montrose, M.H., Murer, H. 126:19
–, substrate-induced modulation of ATP turnover in dog and rabbit proximal tubules, Noël, J., Tejedor, A., Vinay, P., Laprade, R. 128:205
Bag cell neurons
–, hyperosmotic media inhibit voltage-dependent calcium influx and peptide release in *Aplysia* neurons, Loechner, K.J., Knox, R.J., Connor, J.A., Kaczmarek, L.K. 128: 41
Band 3
–, characterization of BADS-binding proteins in epithelial plasma membranes, Pearce, S.F.A., Zadunaisky, J.A. 123:235
–, conformational changes in human red cell membrane proteins induced by sugar binding, Janoshazi, A., Kifor, G., Solomon, A.K. 123:191
–, decreased rotational diffusion of band 3 in Melanesian ovalocytes from Papua, New Guinea, Tilley, L., Nash, G.B., Jones, G.L., Sawyer, W.H. 121:59
–, measurement of exofacially reactive lysines in human erythrocyte band 3 using pyridoxal 5′-phosphate, Salhany, J.M. 121:91
Band 3 protein
–, role of Lys 558 and Lys 869 in substrate and inhibitor binding to the murine band 3 protein: a study of the effects of site-directed mutagenesis of the band 3 protein expressed in the oocytes of *Xenopus laevis*, Wood, P.G., Müller, H., Sovak, M., Passow, H. 127:139
Barium ions
–, Ba^{2+}-induced action potentials in osteoblastic cells, Ferrier, J., Grygorczyk, C., Grygorczyk, R., Kesthely, A., Lagan, E., Xia, S.L. 123:255
–, single-channel K^+ currents in *Drosophila* muscle and their pharmacological block, Gorczyca, M.G., Wu, C.F. 121:237
Basolateral membrane
–, apical and basolateral Na/H exchange in cultured murine proximal tubule cells (MCT): effect of parathyroid hormone (PTH), Mrkic, B., Forgo, J., Murer, H., Helmle-Kolb, C. 130:205
–, basolateral membrane potassium conductance of A6 cells, Broillet, M.C., Horisberger, J.D. 124:1
–, Ca^{2+}-dependent chloride conductance in *Necturus* taste cells, McBride, D.W., Jr., Roper, S.D. 124:85
–, cAMP activation of CF-affected Cl^- conductance in both cell membranes of an absorptive epithelium, Reddy, M.M., Quinton, P.M. 130:49
–, Cl^- channels in basolateral renal medullary membrane vesicles: IV. analogous channel activation by Cl^- or cAMP-dependent protein kinase, Winters, C.J., Reeves, W.B., Andreoli, T.E. 122:89
–, Cl^- channels in basolateral renal medullary vesicles: V. comparison of basolateral mTALH Cl^- channels with apical Cl^- channels from jejunum and trachea, Winters, C.J., Reeves, W.B., Andreoli, T.E. 128:27
–, diversity of K^+ channels in the basolateral membrane of resting *Necturus* oxyntic cells, Supplisson, S., Loo, D.D.F., Sachs, G. 123:209
–, Na^+ transport and impedance properties of cultured renal (A6 and 2F3) epithelia, Wills, N.K., Purcell, R.K., Clausen, C. 125:273
–, papaverine reduces the sodium permeability of the apical membrane and the potassium permeability of the basolateral membrane in isolated frog skin, Andersen, H., Nielsen, R. 126:235
–, uridine transport in basolateral plasma membrane vesicles from rat liver, Ruiz-Montasell, B., Casado, F.J., Felipe, A., Pastor-Anglada, M. 128:227
Basolateral membrane vesicles
–, Cl/HCO_3 exchange in the basolateral membrane domain of rat jejunal enterocyte, Orsenigo, M.N., Tosco, M., Faelli, A. 124:13
Batrachotoxin
–, reconstitution of sodium channels in large liposomes formed by the addition of acidic phospholipids and freeze-thaw sonication, Migual, V., Balbi, D., Castillo, C., Villegas, R. 129:37
BCECF
–, K-induced alkalinization in all cell types of rabbit gastric glands: a novel K/H exchange mechanism, Hofer, A.M., Machen, T.E. 126:245
–, pH regulation in tissue-cultured bovine lens epithelial cells, Williams, M.R., Duncan, G., Croghan, P.C., Riach, R., Webb, S.F. 129:179
–, regulation of cytoplasmic pH in rat sublingual mucous acini at rest and during muscarinic stimulation, Zhang, G.H., Cragoe, E.J., Jr., Melvin, J.E. 129:311
–, regulation of principal cell pH by Na/H exchange in rabbit cortical collecting tubule, Silver, R.B., Frindt, G., Palmer, L.G. 125:13
β-adrenergic receptors
–, cAMP activation of CF-affected Cl^- conductance in both cell membranes of an absorptive epithelium, Reddy, M.M., Quinton, P.M. 130:49
β-cell
–, analysis and use of the perforated patch technique for recording ionic currents in pancreatic β-cells, Sala, S., Parsey, R.V., Cohen, A.S., Matteson, D.R. 122:177

–, slow voltage inactivation of Ca^{2+} currents and bursting mechanisms for the mouse pancreatic beta-cell, Smolen, P., Keizer, J. 127:9
Bicarbonate
–, cation transport in vascular endothelial cells and aging, Adragna, N.C. 124:285
–, H^+ extrusion by an apical vacuolar-type H^+-ATPase in rat renal proximal tubules, Zimolo, Z., Montrose, M.H., Murer, H. 126:19
Bicarbonate resorption
–, electrogenic proton secretion in the hindgut of the desert locust, *Schistocerca gregaria*, Thomson, R.B., Phillips, J.E. 125:133
Binding sites
–, characterization by photoaffinity labeling of a steroid binding protein in rat liver plasma membrane, Ibarrola, I., Alejandro, A., Marino, A., Sancho, M.J., Macarulla, J.M., Trueba, M. 125:185
–, sarcolemmal calcium binding sites in heart: I. molecular origin in "gas-dissected" sarcolemma, Post, J.A., Langer, G.A. 129:49
–, sarcolemmal calcium binding sites in heart: II. mathematical model for diffusion of calcium released from the sarcoplasmic reticulum into the diadic region, Peskoff, A., Post, J.A., Langer, G.A. 129:59
–, two sites for adenine-nucleotide regulation of ATP-sensitive potassium channels in mouse pancreatic β-cells and HIT cells, Hopkins, W.F., Fatherazi, S., Peter-Riesch, B., Corkey, B.E., Cook, D.L 129:287
Biogenic amines
–, lithium-selective permeation through lipid bilayer membranes mediated by a di-imide ionophore with nonsymmetrical imide substituents (ETH1810), Zeevi, A., Margalit, R. 121:133
Blood-brain barrier
–, angiotensin II, vasopressin and GTP[γ-S] inhibit inward-rectifying K^+ channels in porcine cerebral capillary endothelial cells, Hoyer, J., Popp, R., Meyer, J., Galla, H.J., Gögelein, H. 123:55
Bovine lens
–, channel reconstitution in liposomes and planar bilayers with HPLC-purified MIP26 of bovine lens, Shen, L., Shrager, P., Girsch, S.J., Donaldson, P.J., Peracchia, C. 124:21
Bradykinin
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. I. effects of caffeine on intracellular Ca^{2+} stores, Thuringer, D., Sauvé 130:125
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. II. effects of thapsigargin on the cellular Ca^{2+} homeostasis, Thuringer, D., Sauvé, R. 130:139
Brain
–, heterologous expression of calcium channels, Nargeot, J., Dascal, N., Lester, H.A. 126:97
Branchiostoma lanceolatum
–, excitation-contraction coupling in a pre-vertebrate twitch muscle: the myotomes of *Branchiostoma lanceolatum*, Benterbusch, R., Herberg, F.W., Melzer, W., Thieleczek, R. 129:237
Brown adipose tissue
–, inner mitochondrial membrane anion channel is present in brown adipocytes but is not identical with the uncoupling protein, Klitsch, T., Siemen, D. 122:69
Brush border membrane
–, a choline transporter in renal brush-border membrane vesicles: energetics and structural specificity, Wright, S.H., Wunz, T.M., Wunz, T.P. 126:51
–, amiloride sensitivity of proton-conductive pathways in gastric and intestinal apical membrane vesicles, Wilkes, J.M., Hirst, B.H. 126:115
–, analysis of kinetic data in transport studies: new insights from kinetic studies of Na^+-D-glucose cotransport in human intestinal brush-border membrane vesicles using a fast sampling, rapid filtration apparatus, Malo, C., Berteloot, A. 122:127
–, angiotensin II directly increases rabbit renal brush-border membrane sodium transport: presence of local signal transduction system, Morduchowicz, G.A., Sheikh-Hamad, D., Dwyer, B.E., Stern, N., Jo, O.D., Yanagawa, N. 122:43
–, fast sampling, rapid filtration apparatus: principal characteristics and validation from studies of D-glucose transport in human jejunal brush-border membrane vesicles, Berteloot, A., Malo, C., Breton, S., Brunette, M. 122:111
–, H^+ extrusion by an apical vacuolar-type H^+-ATPase in rat renal proximal tubules, Zimolo, Z., Montrose, M.H., Murer, H. 126:19
–, inhibition of ileal brush-border chloride conductance by specific antibody, Gabriel, S.E., Racette, K.J., Gaspar, K.J., Forsyth, G.W. 129:323
Bumetanide
–, characterization of BADS-binding proteins in epithelial plasma membranes, Pearce, S.F.A., Zadunaisky, J.A. 123:235
–, nature of the neutral Na^+-Cl^- coupled entry at the apical membrane of rabbit gallbladder epithelium: IV. Na^+/H^+, Cl^-/HCO_3^- double exchange, hydrochlorothiazide-sensitive Na^+-Cl^- symport and Na^+-K^+-$2Cl^-$ cotransport are all involved, Cremaschi, D., Porta, C., Bottà, G., Meyer, G. 129:221
Bumetanide binding
–, ionic effects on bumetanide binding to the activated Na/K/2Cl cotransporter: selectivity and kinetics properties of ion binding sites, Hegde, R., Palfrey, H.C. 126:27
Bursting mechanism
–, slow voltage inactivation of Ca^{2+} currents and bursting mechanisms for the mouse pancreatic beta-cell, Smolen, P., Keizer, J. 127:9
Ca-activated K^+ channels
–, inhibition of Ca-activated K^+ channels from renal microvillus membrane vesicles by amiloride analogs, Zweifach, A., Desir, G.V., Aronson, P.S., Giebisch, G. 128:115
Ca^{2+}-activated Cl^- conductance
–, calcium-activated chloride conductance of lactotrophs: comparison of activation in normal and tumoral cells during thyrotropin-releasing-hormone stimulation, Sartor, P., Dufy-Barbe, L., Vacher, P., Dufy, B. 126:39
Ca^{2+}-activated K^+ channels
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. I. effects of caffeine on intracellular Ca^{2+} stores, Thuringer, D., Sauvé 130:125
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. II. effects of thapsigargin on the cellular Ca^{2+} homeostasis, Thuringer, D., Sauvé, R. 130:139
–, possible mechanism of ciliary stimulation by extracellular ATP: involvement of calcium-dependent potassium channels and exogenous Ca^{2+}, Weiss, T., Gheber, L., Shoshan-Barmatz, V., Priel, Z. 127:185
–, single-channel K^+ currents in *Drosophila* muscle and their pharmacological block, Gorczyca, M.G., Wu, C.F. 121:237

–, whole-cell K^+ current activation in response to voltages and carbachol in gastric parietal cells isolated from guinea pig, Kotera, T., Hashimoto, A., Ueda, S., Okada, Y. 124: 43

Ca^{2+}-activity
–, Ca^{2+}-independent form of protein kinase C may regulate Na^+ transport across frog skin, Civan, M.M., Oler, A., Peterson-Yantorno, K., George, K., O'Brien, T.G. 121:37

Ca^{2+}-ATPase
–, actions of cadmium on basolateral plasma membrane proteins involved in calcium uptake by fish intestine, Schoenmakers, T.J.M., Klaren, P.H.M., Flik, G., Lock, R.A.C., Pang, P.K.T., Bonga, S.E.W. 127:161

Ca^{2+} current
–, excitation-contraction coupling in a pre-vertebrate twitch muscle: the myotomes of *Branchiostoma lanceolatum*, Benterbusch, R., Herberg, F.W., Melzer, W., Thieleczek, R. 129:237
–, sulfhydryl alkylating agents induce calcium current in skeletal muscle fibers of a crustacean (*Atya lanipes*), Lizardi, L., Garcia, M.C., Sanchez, J.A., Zuazaga, C. 129:167

Ca^{2+}-dependent Cl^- conductance
–, Ca^{2+}-dependent chloride conductance in *Necturus* taste cells, McBride, D.W., Jr., Roper, S.D. 124:85

Ca^{2+}-dependent Cl^- currents
–, ATP activates a Ca^{2+}-dependent Cl^- current in the rat thyroid cell line, FRTL-5, Martin, S.C. 125:243
–, cytoplasmic Ca^{2+} signals evoked by activation of cholecystokinin receptors: Ca^{2+}-dependent current recording in internally perfused pancreatic acinar cells, Wakui, M., Kase, H., Petersen, O.H. 124:179

Ca^{2+}-dependent Zn^{2+} efflux
–, calcium-dependent zinc efflux in human red blood cells, Simons, T.J.B. 123:73

Ca^{2+} entry
–, calcium-dependent control of volume regulation in renal proximal tubule cells: I. swelling-activated Ca^{2+} entry and release, McCarty, N.A., O'Neil, R.G. 123:149
–, calcium-dependent control of volume regulation in renal proximal tubule cells: II. role of dihydropyridine-sensitive and -insensitive Ca^{2+} entry pathways, McCarty, N.A., O'Neil, R.G. 123:161
–, hyperosmotic media inhibit voltage-dependent calcium influx and peptide release in *Aplysia* neurons, Loechner, K.J., Knox, R.J., Connor, J.A., Kaczmarek, L.K. 128:41
–, membrane potential modulates divalent cation entry in rat parotid acini, Mertz, L.M., Baum, B.J., Ambudkar, I.S. 126:183
–, permeation of Ca^{2+} through K^+ channels in the plasma membrane of *Vicia faba* guard cells, Fairley-Grenot, K.A., Assmann, S.M. 128:103

Ca^{2+} extrusion
–, rapid Ca^{2+} extrusion via the Na^+/Ca^{2+} exchanger of the human platelet, Valant, P.A., Adjei, P.N., Haynes, D.H. 130:63

Ca^{2+}-permeable channels
–, variety of Ca^{2+}-permeable channels in human carcinoma A431 cells, Mozhayeva, G.N., Naumov, A.P., Kuryshev, Y.A. 124:113

Ca^{2+} pump
–, a calcium conducting channel akin to a calcium pump, Wang, J., Tang, J.M., Eisenberg, R.S. 130:163
–, rapid Ca^{2+} extrusion via the Na^+/Ca^{2+} exchanger of the human platelet, Valant, P.A., Adjei, P.N., Haynes, D.H. 130:63

Ca^{2+} release
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. I. effects of caffeine on intracellular Ca^{2+} stores, Thuringer, D., Sauvé 130:125
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. II. effects of thapsigargin on the cellular Ca^{2+} homeostasis, Thuringer, D., Sauvé, R. 130:139
–, calcium-dependent control of volume regulation in renal proximal tubule cells: I. swelling-activated Ca^{2+} entry and release, McCarty, N.A., O'Neil, R.G. 123:149
–, calcium-dependent control of volume regulation in renal proximal tubule cells: II. role of dihydropyridine-sensitive and -insensitive Ca^{2+} entry pathways, McCarty, N.A., O'Neil, R.G. 123:161
–, calcium release and internal calcium regulation in acinar cells of exocrine glands, Marty, A. 124:189
–, comparison of calcium release from sarcoplasmic reticulum of slow and fast twitch muscles, Lee, Y.S., Ondrias, K., Duhl, A.J., Ehrlich, B.E., Kim, D.H. 122:155
–, depolarization-induced calcium release from isolated triads measured with impermeant fura-2, Corbett, A.M., Bian, J., Wade, J.B., Schneider, M.F. 128:165
–, elevation of cytostolic [Ca^{2+}] due to intracellular Ca^{2+} release retards carbachol stimulation of divalent cation entry in rat parotid gland acinar cells, Hiramatsu, Y., Baum, B.J., Ambudkar, I.S. 129:277
–, excitation-contraction coupling in a pre-vertebrate twitch muscle: the myotomes of *Branchiostoma lanceolatum*, Benterbusch, R., Herberg, F.W., Melzer, W., Thieleczek, R. 129:237
–, sarcolemmal calcium binding sites in heart: II. mathematical model for diffusion of calcium released from the sarcoplasmic reticulum into the diadic region, Peskoff, A., Post, J.A., Langer, G.A. 129:59
–, sulfhydryl alkylating agents induce calcium current in skeletal muscle fibers of a crustacean (*Atya lanipes*), Lizardi, L., Garcia, M.C., Sanchez, J.A., Zuazaga, C. 129:167

Ca^{2+} signals
–, differences in Ca^{2+}-mediation of hypotonic and Na^+-nutrient regulatory volume decrease in suspensions of jejunal enterocytes, MacLeod, R.J., Lembessis, P., Hamilton, J.R. 130:23

Caffeine
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. I. effects of caffeine on intracellular Ca^{2+} stores, Thuringer, D., Sauvé 130:125
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. II. effects of thapsigargin on the cellular Ca^{2+} homeostasis, Thuringer, D., Sauvé, R. 130:139
–, cytoplasmic Ca^{2+} signals evoked by activation of cholecystokinin receptors: Ca^{2+}-dependent current recording in internally perfused pancreatic acinar cells, Wakui, M., Kase, H., Petersen, O.H. 124:179
–, effects of the anesthetics heptanol, halothane and isoflurane on gap junction conductance in crayfish septate axons: a calcium- and hydrogen-independent phenomenon potentiated by caffeine and theophylline, and inhibited by 4-aminopyridine, Peracchia, C. 121:67

Calamodulin
–, differences in Ca^{2+}-mediation of hypotonic and Na^+-nutrient regulatory volume decrease in suspensions of jejunal enterocytes, MacLeod, R.J., Lembessis, P., Hamilton, J.R. 130:23

Calcium binding
–, sarcolemmal calcium binding sites in heart: I. molecular origin in "gas-dissected" sarcolemma, Post, J.A., Langer, G.A. 129:49
–, sarcolemmal calcium binding sites in heart: II. mathematical model for diffusion of calcium released from the sarcoplasmic reticulum into the diadic region, Peskoff, A., Post, J.A., Langer, G.A. 129:59
Calcium channel expression
–, heterologous expression of calcium channels, Nargeot, J., Dascal, N., Lester, H.A. 126:97
Calcium channels
–, a calcium conducting channel akin to a calcium pump, Wang, J., Tang, J.M., Eisenberg, R.S. 130:163
–, background calcium permeable channels in glomerulosa cells from adrenal gland, Durroux, T., Gallo-Payet, N., Bilodeau, L., Payet, M.D. 129:145
Calcium current
–, analysis and use of the perforated patch technique for recording ionic currents in pancreatic β-cells, Sala, S., Parsey, R.V., Cohen, A.S., Matteson, D.R. 122:177
Calcium diffusion
–, sarcolemmal calcium binding sites in heart: II. mathematical model for diffusion of calcium released from the sarcoplasmic reticulum into the diadic region, Peskoff, A., Post, J.A., Langer, G.A. 129:59
Calcium extrusion
–, extrusion of calcium from a single isolated neuron of the snail *Helix pomatia*, Tepikin, A.V., Kostyuk, P.G., Snitsarev, V.A., Belan, P.V. 123:43
Calcium influx
–, Ca^{2+}-dependent chloride conductance in *Necturus* taste cells, McBride, D.W., Jr., Roper, S.D. 124:85
–, calcium influx and intracellular calcium release in anti-CD3 antibody-stimulated and thapsigargin-treated human T lymphoblasts, Sarkadi, B., Tordai, A., Homolya, L., Scharff, O., Gárdos, G. 123:9
–, sodium-calcium exchange in renal epithelial cells: dependence on cell sodium and competitive inhibition by magnesium, Lyu, R.M., Smith, L., Smith, J.B. 124:73
–, variety of Ca^{2+}-permeable channels in human carcinoma A431 cells, Mozhayeva, G.N., Naumov, A.P., Kuryshev, Y.A. 124:113
Calcium ion channels
–, activation of voltage-sensitive Ca^{2+} currents by vasopressin in an insulin-secreting cell line, Thorn, P., Petersen, O.H. 124:63
–, Ba^{2+}-induced action potentials in osteoblastic cells, Ferrier, J., Grygorczyk, C., Grygorczyk, R., Kesthely, A., Lagan, E., Xia, S.L. 123:255
–, block of the sheep cardiac sarcoplasmic reticulum Ca^{2+}-release channel by tetra-alkyl ammonium cations, Tinker, A., Lindsay, A.R.G., Williams, A.J. 127:149
–, pertussis toxin stimulation of catecholamine release from adrenal medullary chromaffin cells: mechanism may be by direct activation of L-type and G-type calcium channels, Ceña, V., Brocklehurst, K.W., Pollard, H.B., Rojas, E. 122:23
–, possible mechanism of ciliary stimulation by extracellular ATP: involvement of calcium-dependent potassium channels and exogenous Ca^{2+}, Weiss, T., Gheber, L., Shoshan-Barmatz, V., Priel, Z. 127:185
–, toad bladder amiloride-sensitive channels reconstituted into planar lipid bilayers, Branco, L.G.S., Varanda, W.A. 127:121
Calcium ion currents
–, role voltage-dependent ionic currents in coupling glucose stimulation to insulin secretion in canine pancreatic islet B-cells, Pressel, D.M., Misler, S. 124:239
–, slow voltage inactivation of Ca^{2+} currents and bursting mechanisms for the mouse pancreatic beta-cell, Smolen, P., Keizer, J. 127:9
Calcium ion oscillations
–, spatial and temporal patterns of intracellular calcium in colonic smooth muscle, Mayer, E.A., Kodner, A., Sun, X.P., Wilkes, J., Scott, D., Sachs, G. 125:107
Calcium ion transients
–, activation of K^+ channels by lanthanum contributes to the block of transmitter release in chick and rat sympathetic neurons, Przywara, D.A., Bhave, S.V., Bhave, A., Chowdhury, P.S., Wakade, T.D., Wakade, A.R. 125:155
Calcium ions
–, a transient outward current dependent on external calcium in rat cerebellar granule cells, Carignani, C., Robello, M., Marchetti, C., Maga, L. 122:259
–, assembly and sealing of tight junctions: possible participation of G-proteins, phospholipase C, protein kinase C and calmodulin, Balda, M.S., González-Mariscal, L., Contreras, R.G., Macias-Silva, M., Toress-Marquez, M.E., Sáinz, J.A.G., Cereijido, M. 122:193
–, calcium release and internal calcium regulation in acinar cells of exocrine glands, Marty, A. 124:189
–, membrane transport in stomatal guard cells: the importance of voltage control, Thiel, G., MacRobbie, E.A.C., Blatt, M.R. 126:1
Calcium uptake
–, actions of cadmium on basolateral plasma membrane proteins involved in calcium uptake by fish intestine, Schoenmakers, T.J.M., Klaren, P.H.M., Flik, G., Lock, R.A.C., Pang, P.K.T., Bonga, S.E.W. 127:161
Calmodulin
–, assembly and sealing of tight junctions: possible participation of G-proteins, phospholipase C, protein kinase C and calmodulin, Balda, M.S., González-Mariscal, L., Contreras, R.G., Macias-Silva, M., Toress-Marquez, M.E., Sáinz, J.A.G., Cereijido, M. 122:193
–, mapping of the calpain proteolysis products of the junctional foot protein of the skeletal muscle triad junction, Brandt, N.R., Caswell, A.H., Brandt, T., Brew, K., Mellgren, R.L. 127:35
–, specific protein phosphorylation occurs in molluscan red blood cell ghosts in response to hypoosmotic stress, Politis, A.D., Pierce, S.K. 124:169
Calpain
–, mapping of the calpain proteolysis products of the junctional foot protein of the skeletal muscle triad junction, Brandt, N.R., Caswell, A.H., Brandt, T., Brew, K., Mellgren, R.L. 127:35
Calpastatin
–, mapping of the calpain proteolysis products of the junctional foot protein of the skeletal muscle triad junction, Brandt, N.R., Caswell, A.H., Brandt, T., Brew, K., Mellgren, R.L. 127:35
cAMP
–, cAMP activation of CF-affected Cl^- conductance in both cell membranes of an absorptive epithelium, Reddy, M.M., Quinton, P.M. 130:49
–, electrophysiological studies of forskolin-induced changes in ion transport in the human colon carcinoma cell line HT-29 cl.19A: lack of evidence for a cAMP-activated basolateral

K^+ conductance, Bajnath, R.B., Augeron, C., Laboisse, C.L., Bijman, J., de Jonge, H.R., Groot, J.A. 122:239
–, gating of retinal rod cation channel by different nucleotides: comparative study of unitary currents, Ildefonse, M., Crouzy, S., Bennett, N. 130:91
–, IP_3- and cAMP-induced responses in isolated olfactory receptor neurons from the channel catfish, Miyamoto, T., Restrepo, D., Cragoe, E.J., Jr., Teeter, J.H. 127:173
–, modulation of inwardly rectifying Na^+-K^+ channels by serotonin and cyclic nucleotides in salivary gland cells of the leech, *Haementeria*, Wuttke, W.A., Berry, M.S. 127:57
–, papaverine reduces the sodium permeability of the apical membrane and the potassium permeability of the basolateral membrane in isolated frog skin, Andersen, H., Nielsen, R. 126:235
cAMP-dependent protein kinase
–, Cl^- channels in basolateral renal medullary membrane vesicles: IV. analogous channel activation by Cl^- or cAMP-dependent protein kinase, Winters, C.J., Reeves, W.B., Andreoli, T.E. 122:89
cAMP-regulated channels
–, chloride channels on epithelial cells cultured from human fetal epididymis, Pollard, C.E., Harris, A., Coleman, L., Argent, B.E. 124:275
Carbachol
–, biphasic increase of apical Cl^- conductance by muscarinic stimulation of HT-29cl.19A human colon carcinoma cell line: evidence for activation of different Cl^- conductances by carbachol and forskolin, Bajnath, R.B., Dekker, K., Vaandrager, A.B., de Jonge, H.R., Groot, J.A. 127:81
–, elevation of cytostolic [Ca^{2+}] due to intracellular Ca^{2+} release retards carbachol stimulation of divalent cation entry in rat parotid gland acinar cells, Hiramatsu, Y., Baum, B.J., Ambudkar, I.S. 129:277
–, membrane potential modulates divalent cation entry in rat parotid acini, Mertz, L.M., Baum, B.J., Ambudkar, I.S. 126:183
–, muscarinic responses of gastric parietal cells, Wilkes, J.M., Kajimura, M., Scott, D.R., Hersey, S.J., Sachs, G. 122:97
–, regulation of a potassium-selective current in rabbit corneal epithelium by cyclic GMP, carbachol and diltiazem, Farrugia, G., Rae, J.L. 129:99
–, whole-cell K^+ current activation in response to voltages and carbachol in gastric parietal cells isolated from guinea pig, Kotera, T., Hashimoto, A., Ueda, S., Okada, Y. 124:43
Carcinoma cells
–, variety of Ca^{2+}-permeable channels in human carcinoma A431 cells, Mozhayeva, G.N., Naumov, A.P., Kuryshev, Y.A. 124:113
Carcinoma etiology
–, incorporation of the gene for a cell-cell channel protein into transformed cells leads to normalization of growth, Mehta, P.P., Hotz-Wagenblatt, A., Rose, B., Shalloway, D., Loewenstein, W.R. 124:207
Cardiac Na^+ channels
–, differential response of DPI-modified cardiac Na^+ channels to antiarrhythmic drugs: no flicker blockade by lidocaine, Benz, I., Kohlhardt, M. 126:257
–, responsiveness of cardiac Na^+ channels to antiarrhythmic drugs: the role of inactivation, Benz, I., Kohlhardt, M. 122:267
Catecholamine secretion
–, pertussis toxin stimulation of catecholamine release from adrenal medullary chromaffin cells: mechanism may be by direct activation of L-type and G-type calcium channels, Ceña, V., Brocklehurst, K.W., Pollard, H.B., Rojas, E. 122:23
Catharanthus roseus
–, identification of an essential histidine residue at the active site of the tonoplast malate carrier in *Catharanthus roseus* cells, Dietz, K.J., Canut, H., Marigo, G. 129:137
Cation channels
–, cell swelling activates K^+ and Cl^+ channels as well as nonselective, stretch-activated cation channels in Ehrlich ascites tumor cells, Christensen, O., Hoffmann, E.K. 129:13
–, cytoplasmic chloride regulates cation channels in the vacuolar membrane of plant cells, Pantoja, O., Dainty, J., Blumwald, E. 125:219
–, gating of retinal rod cation channel by different nucleotides: comparative study of unitary currents, Ildefonse, M., Crouzy, S., Bennett, N. 130:91
–, ion channels in the plasma membrane of *Amaranthus* protoplasts: one cation and one anion channel dominate the conductance, Terry, B.R., Tyerman, S.D., Findlay, G.P. 121:223
–, toad bladder amiloride-sensitive channels reconstituted into planar lipid bilayers, Branco, L.G.S., Varanda, W.A. 127:121
Cation pathways
–, identification of anion and cation pathways in the inner mitochondrial membrane by patch clamping of mouse liver mitoplasts, Antonenko, Y.N., Kinnally, K.W., Tedeschi, H. 124:151
Cation transport
–, cation transport in vascular endothelial cells and aging, Adragna, N.C. 124:285
Cell attached patches
–, Cl^- channels in intact human T lymphocytes, Pahapill, P.A., Schlichter, L.C. 125:171
Cell-cell channel proteins
–, incorporation of the gene for a cell-cell channel protein into transformed cells leads to normalization of growth, Mehta, P.P., Hotz-Wagenblatt, A., Rose, B., Shalloway, D., Loewenstein, W.R. 124:207
Cell-cell permeability
–, single-membrane and cell-to-cell permeability properties of dissociated embryonic chick lens cells, Miller, A.G., Zampighi, G.A., Hall, J.E. 128:91
Cell-free conditions
–, gating properties of cardiac Na^+ channels in cell-free conditions, Kohlhardt, M. 122:11
Cell polarity
–, apical and basolateral effects of PTH in OK cells: transport inhibition, messenger production, effects of pertussis toxin, and interaction with a PTH analog, Reshkin, S.J., Forgo, J., Murer, H. 124:227
Cell shrinkage
–, ionic basis of methacholine-induced shrinkage of dissociated eccrine clear cells, Suzuki, Y., Ohtsuyama, M., Samman, G., Sato, F., Sato, K. 123:33
Cell swelling
–, basolateral membrane potassium conductance of A6 cells, Broillet, M.C., Horisberger, J.D. 124:1
–, calcium-dependent control of volume regulation in renal proximal tubule cells: I. swelling-activated Ca^{2+} entry and release, McCarty, N.A., O'Neil, R.G. 123:149
–, calcium-dependent control of volume regulation in renal proximal tubule cells: II. role of dihydropyridine-sensitive

and -insensitive Ca^{2+} entry pathways, McCarty, N.A., O'Neil, R.G. 123:161
–, cell swelling activates K^+ and Cl^+ channels as well as nonselective, stretch-activated cation channels in Ehrlich ascites tumor cells, Christensen, O., Hoffmann, E.K. 129:13
–, differences in Ca^{2+}-mediation of hypotonic and Na^+-nutrient regulatory volume decrease in suspensions of jejunal enterocytes, MacLeod, R.J., Lembessis, P., Hamilton, J.R. 130:23
–, effects of osmotic stress on mast cell vesicles of the beige mouse, Brodwick, M.S., Curran, M., Edwards, C. 126:159
–, ion channels activated by swelling of Madin Darby canine kidney (MDCK) cells, Weiss, H., Lang, F. 126:109

Cell volume
–, ionic basis of methacholine-induced shrinkage of dissociated eccrine clear cells, Suzuki, Y., Ohtsuyama, M., Samman, G., Sato, F., Sato, K. 123:33
–, osmotic effects of protein polymerization analysis of volume changes in sickle cell anemia red cells following deoxyhemoglobin S polymerization, Lew, V.L., Bookchin, R.M. 122:55

Cell volume regulation
–, activation of amino acid diffusion by a volume increase in cultured kidney (MDCK) cells, Roy, G., Malo, C. 130: 83
–, activation of K^+ and CL^- channels in MDCK cells during volume regulation in hypotonic media, Banderali, U., Roy, G. 126:219
–, calcium-dependent control of volume regulation in renal proximal tubule cells: I. swelling-activated Ca^{2+} entry and release, McCarty, N.A., O'Neil, R.G. 123:149
–, calcium-dependent control of volume regulation in renal proximal tubule cells: II. role of dihydropyridine-sensitive and -insensitive Ca^{2+} entry pathways, McCarty, N.A., O'Neil, R.G. 123:161
–, cell swelling activates K^+ and Cl^+ channels as well as nonselective, stretch-activated cation channels in Ehrlich ascites tumor cells, Christensen, O., Hoffmann, E.K. 129:13
–, inability of Ehrlich ascites tumor cells to volume regulate following a hyperosmotic challenge, Levinson, C. 121:279
–, ion channels activated by swelling of Madin Darby canine kidney (MDCK) cells, Weiss, H., Lang, F. 126:109
–, osmolarity-sensitive release of free amino acids from cultured kidney cells (MDCK), Olea, R.S., Pasantes-Morales, H., Lázaro, Cereijido, M. 121:1
–, regulatory volume increase in Ehrlich ascites tumor cells is mediated by the 1Na : 1K : 2Cl cotransport system, Levinson, C. 126:277
–, specific protein phosphorylation occurs in molluscan red blood cell ghosts in response to hypoosmotic stress, Politis, A.D., Pierce, S.K. 124:169
–, volume-dependent regulation of sodium and potassium fluxes in cultured vascular smooth muscle cells: dependence on medium osmolality and regulation by signalling systems, Orlov, S.N., Resink, T.J., Bernhardt, J., Buhler, F.R. 129:199

Cerebellar granule neurons
–, a transient outward current dependent on external calcium in rat cerebellar granule cells, Carignani, C., Robello, M., Marchetti, C., Maga, L. 122:259

Cesium ion currents
–, permeance of Cs^+ and Rb^+ through the inwardly rectifying K^+ channels in guinea pig ventricular myocytes, Mitra, R.L., Morad, M. 122:33

cGMP
–, cyclic GMP regulation of a voltage-activated K channel in dissociated enterocytes, O'Grady, S.M., Cooper, K.E., Rae, J.L. 124:159
–, gating of retinal rod cation channel by different nucleotides: comparative study of unitary currents, Ildefonse, M., Crouzy, S., Bennett, N. 130:91
–, modulation of inwardly rectifying Na^+-K^+ channels by serotonin and cyclic nucleotides in salivary gland cells of the leech, *Haementeria*, Wuttke, W.A., Berry, M.S. 127:57
–, regulation of a potassium-selective current in rabbit corneal epithelium by cyclic GMP, carbachol and diltiazem, Farrugia, G., Rae, J.L. 129:99
–, spontaneous activity of the light-dependent channel irreversibly induced in excised patches from *Limulus* ventral photoreceptors, Johnson, E.C., Bacigalupo, J. 130:33

cGMP-dependent channels
–, single-channel study of the cGMP-dependent conductance of retinal rods from incorporation of native vesicles into planar lipid bilayers, Ildefonse, M., Bennett, N. 123:133

Channel activation
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. I. effects of caffeine on intracellular Ca^{2+} stores, Thuringer, D., Sauvé 130: 125
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. II. effects of thapsigargin on the cellular Ca^{2+} homeostasis, Thuringer, D., Sauvé, R. 130:139
–, Cl^- channels in basolateral renal medullary membrane vesicles: IV. analogous channel activation by Cl^- or cAMP-dependent protein kinase, Winters, C.J., Reeves, W.B., Andreoli, T.E. 122:89
–, Cl^- channels in basolateral renal medullary vesicles: V. comparison of basolateral mTALH Cl^- channels with apical Cl^- channels from jejunum and trachea, Winters, C.J., Reeves, W.B., Andreoli, T.E. 128:27

Channel blockers
–, block of the sheep cardiac sarcoplasmic reticulum Ca^{2+}-release channel by tetra-alkyl ammonium cations, Tinker, A., Lindsay, A.R.G., Williams, A.J. 127:149
–, mechanism of asymmetric block of K channels by tetraalkylammonium ions in mouse neuroblastoma cells, Im, M.B., Quandt, F.N. 130:115

Channel degradation
–, urinary proteases degrade epithelial sodium channels, Lewis, S.A., Clausen, C. 122:77

Channel expression
–, subunit requirements for *Torpedo* AChR channel expression: a specific role for the δ-subunit in voltage-dependent gating, Golino, M.D., Hamill, O.P. 129:297

Channel gating
–, activation of skeletal muscle nicotinic acetylcholine receptors, Lingle, C.J., Maconochie, D., Steinbach, J.H. 126:195
–, ion channel gating in plants: physiological implications and integration for stomatal function, Blatt, M.R. 124: 95
–, involvement of different S_4 parts in the voltage dependency of Na channel gating, Kra-Oz, Z., Spira, G., Palti, Y., Meiri, H. 129:189

Channel inhibition
–, inhibition of Ca-activated K^+ channels from renal microvillus membrane vesicles by amiloride analogs, Zweifach, A., Desir, G.V., Aronson, P.S., Giebisch, G. 128:115

Channel model
–, model ion channels: gramicidin and alamethicin, Woolley, G.A., Wallace, B.A. 129:109
Channel modulation
–, modulation of inwardly rectifying Na^+-K^+ channels by serotonin and cyclic nucleotides in salivary gland cells of the leech, *Haementeria*, Wuttke, W.A., Berry, M.S. 127:57
–, phosphorylation modulates the voltage-dependence of channels reconstituted from the major intrinsic protein of lens fiber membranes, Ehring, G.R., Lagos, N., Zampighi, G.A., Hall, J.E. 126:75
Channel purification
–, partial purification of a potassium channel with low permeability for sodium from tonoplast membranes of *Hordeum vulgare* cv. gerbel, Klughammer, B., Betz, M., Benz, R., Dietz, K.J. 128:17
Chara corallina
–, *Chara* plasmalemma at high pH: voltage dependence of the conductance at rest and during excitation, Beilby, M.J., Bisson, M.A. 125:25
Charge translocation
–, charge translocation by the Na,K pump: II. ion binding and release at the extracellular face, Strümer, W., Bühler, R., Apell, H.J., Läuger, P. 121:163
–, charge translocation by the Na,K-pump: I. kinetics of local field changes studied by time-resolved fluorescence measurements, Bühler, R., Stürmer, W., Apell, J.J., Läuger, P. 121:141
Charybdotoxin
–, cyclic GMP regulation of a voltage-activated K channel in dissociated enterocytes, O'Grady, S.M., Cooper, K.E., Rae, J.L. 124:159
–, differences in Ca^{2+}-mediation of hypotonic and Na^+-nutrient regulatory volume decrease in suspensions of jejunal enterocytes, MacLeod, R.J., Lembessis, P., Hamilton, J.R. 130:23
Chemoreception
–, noninvasive recording of receptor cell action potentials and sustained currents from single taste buds maintained in the tongue: the response to mucosal NaCl and amiloride, Avenet, P., Lindemann, B. 124:33
Chick lens cells
–, single-membrane and cell-to-cell permeability properties of dissociated embryonic chick lens cells, Miller, A.G., Zampighi, G.A., Hall, J.E. 128:91
Chloride channels
–, chloride channels on epithelial cells cultured from human fetal epididymis, Pollard, C.E., Harris, A., Coleman, L., Argent, B.E. 124:275
–, chloride channels in the nuclear membrane, Tabares, L., Mazzanti, M., Clapham, D.E. 123:49
–, ionic basis of methacholine-induced shrinkage of dissociated eccrine clear cells, Suzuki, Y., Ohtsuyama, M., Samman, G., Sato, F., Sato, K. 123:33
–, modification of gating of an airway epithelial chloride channel by 5-nitro-2-(3-phenylpropylamino)benzoic acid (NPPB), Alton, E.W.F.W., Williams, A.J. 128:141
–, properties of single- and double-barreled Cl channels of shark rectal gland in planar bilayers, Sansom, S.C., Carosi, S.L. 126:67
Chloride conductance
–, Ca^{2+}-dependent chloride conductance in *Necturus* taste cells, McBride, D.W., Jr., Roper, S.D. 124:85
–, inhibition of ileal brush-border chloride conductance by specific antibody, Gabriel, S.E., Racette, K.J., Gaspar, K.J., Forsyth, G.W. 129:323
Chloride ion channels
–, action potentials in *Acetabularia*: measurement and simulation of voltage-gated fluxes, Mummert, H., Gradmann, D. 124:265
–, activation of K^+ and CL^- channels in MDCK cells during volume regulation in hypotonic media, Banderali, U., Roy, G. 126:219
–, cell swelling activates K^+ and Cl^+ channels as well as nonselective, stretch-activated cation channels in Ehrlich ascites tumor cells, Christensen, O., Hoffmann, E.K. 129:13
–, Cl^- channels in basolateral renal medullary membrane vesicles: IV. analogous channel activation by Cl^- or cAMP-dependent protein kinase, Winters, C.J., Reeves, W.B., Andreoli, T.E. 122:89
–, Cl^- channels in basolateral renal medullary vesicles: V. comparison of basolateral mTALH Cl^- channels with apical Cl^- channels from jejunum and trachea, Winters, C.J., Reeves, W.B., Andreoli, T.E. 128:27
–, Cl^- channels in intact human T lymphocytes, Pahapill, P.A., Schlichter, L.C. 125:171
–, factors affecting chloride conductance in apical membrane vesicles from human placenta, Faller, D., Ryan, M.P. 130:227
–, ion channels activated by swelling of Madin Darby canine kidney (MDCK) cells, Weiss, H., Lang, F. 126:109
–, outwardly rectifying chloride channels in lymphocytes, Garber, S.S. 127:49
–, response of chloride efflux from skeletal muscle of *Rana pipiens* to changes of temperature and membrane potential and diethylpyrocarbonate treatment, Spalding, B.C., Taber, P., Swift, J.G., Horowicz, P. 123:223
–, solubilization and function al reconstitution of a chloride channel from *Torpedo californica* electroplax, Goldberg, A.F.X., Miller, C. 124:199
Chloride ion conductance
–, biphasic increase of apical Cl^- conductance by muscarinic stimulation of HT-29cl.19A human colon carcinoma cell line: evidence for activation of different Cl^- conductances by carbachol and forskolin, Bajnath, R.B., Dekker, K., Vaandrager, A.B., de Jonge, H.R., Groot, J.A. 127:81
–, cAMP activation of CF-affected Cl^- conductance in both cell membranes of an absorptive epithelium, Reddy, M.M., Quinton, P.M. 130:49
–, differences in Ca^{2+}-mediation of hypotonic and Na^+-nutrient regulatory volume decrease in suspensions of jejunal enterocytes, MacLeod, R.J., Lembessis, P., Hamilton, J.R. 130:23
–, factors affecting chloride conductance in apical membrane vesicles from human placenta, Faller, D., Ryan, M.P. 130:227
Chloride ion flux
–, response of chloride efflux from skeletal muscle of *Rana pipiens* to changes of temperature and membrane potential and diethylpyrocarbonate treatment, Spalding, B.C., Taber, P., Swift, J.G., Horowicz, P. 123:223
Chloride ion transport
–, effect of sulfhydryl compounds on ATP-stimulated H^+ transport and Cl^- uptake in rabbit renal cortical endosomes, Hilden, S.A., Madias, N.E. 124:139
–, electrophysiological studies of forskolin-induced changes in ion transport in the human colon carcinoma cell line HT-29 cl.19A: lack of evidence for a cAMP-activated basolateral

K^+ conductance, Bajnath, R.B., Augeron, C., Laboisse, C.L., Bijman, J., de Jonge, H.R., Groot, J.A. 122:239
–, role of Lys 558 and Lys 869 in substrate and inhibitor binding to the murine band 3 protein: a study of the effects of site-directed mutagenesis of the band 3 protein expressed in the oocytes of *Xenopus laevis*, Wood, P.G., Müller, H., Sovak, M., Passow, H. 127:139
Chloride secretion
–, localization of sodium absorption and chloride secretion in an intestinal epithelium, Holtug, K., Shipley, A., Datzer, V., Sten-Knudsen, O., Skadhauge, E. 122:215
Chloride uptake
–, Cl/HCO_3 exchange in the basolateral membrane domain of rat jejunal enterocyte, Orsenigo, M.N., Tosco, M., Faelli, A. 124:13
p-Chloromercuribenzoic acid
–, effect of sulfhydryl compounds on ATP-stimulated H^+ transport and Cl^- uptake in rabbit renal cortical endosomes, Hilden, S.A., Madias, N.E. 124:139
Cholecystokinin
–, cytoplasmic Ca^{2+} signals evoked by activation of cholecystokinin receptors: Ca^{2+}-dependent current recording in internally perfused pancreatic acinar cells, Wakui, M., Kase, H., Petersen, O.H. 124:179
Cholesterol
–, effect of cholesterol and dipalmitoyl phosphatidylcholine enrichment on the kinetics of Na-Li exchange of human erythrocytes, Engelmann, B., Duhm, J. 122:231
Choline transport
–, a choline transporter in renal brush-border membrane vesicles: energetics and structural specificity, Wright, S.H., Wunz, T.M., Wunz, T.P. 126:51
Cholinergic stimulation
–, ionic basis of methacholine-induced shrinkage of dissociated eccrine clear cells, Suzuki, Y., Ohtsuyama, M., Samman, G., Sato, F., Sato, K. 123:33
Cholinesterase inhibitor
–, effects of irreversible and reversible cholinesterase inhibitors on single acetylcholine-activated channels, Zorec, R., Scuka, M., Kordas, M. 125:41
Chromaffin granule
–, calcium-independent K^+-selective channel from chromaffin granule membranes, Arispe, N., Pollard, H.B., Rojas, E. 130:191
Ciliary activity
–, possible mechanism of ciliary stimulation by extracellular ATP: involvement of calcium-dependent potassium channels and exogenous Ca^{2+}, Weiss, T., Gheber, L., Shoshan-Barmatz, V., Priel, Z. 127:185
Ciliary muscle
–, Na^+ dependent HCO_3^- transport and Na^+/H^+ exchange regulate pH_i in human ciliary muscle cells, Stahl, F., Lepple-Wienhues, A., Koch, M., Wiederholt, M. 127:215
Cl/HCO_3 exchange
–, Cl/HCO_3 exchange in the basolateral membrane domain of rat jejunal enterocyte, Orsenigo, M.N., Tosco, M., Faelli, A. 124:13
Cl^--activated channels
–, cytoplasmic chloride regulates cation channels in the vacuolar membrane of plant cells, Pantoja, O., Dainty, J., Blumwald, E. 125:219
Cl^-/HCO_3^- exchange
–, nature of the neutral Na^+-Cl^- coupled entry at the apical membrane of rabbit gallbladder epithelium: IV. Na^+/H^+, Cl^-/HCO_3^- double exchange, hydrochlorothiazide-sensitive Na^+-Cl^- symport and Na^+-K^+-$2Cl^-$ cotransport are all involved, Cremaschi, D., Porta, C., Bottà, G., Meyer, G. 129:221
–, pH regulation in tissue-cultured bovine lens epithelial cells, Williams, M.R., Duncan, G., Croghan, P.C., Riach, R., Webb, S.F. 129:179
Cl^-/OH^- exchange
–, effect of sulfhydryl compounds on ATP-stimulated H^+ transport and Cl^- uptake in rabbit renal cortical endosomes, Hilden, S.A., Madias, N.E. 124:139
Clavibacter michiganense ssp. nebraskense
–, anion channel forming activity from the plant pathogenic bacterium *Clavibacter michiganense ssp. nebraskense*, Schrholz, T., Wilimzig, M., Katsiou, E., Eichenlaub, R. 123:1
Coenzyme Q
–, on coenzyme Q orientation in membranes: a linear dichroism study of ubiquinones in a model bilayer, Samorì, B., Lenaz, G., Battino, M., Marconi, G., Domini, I. 128:193
Colicin
–, ion selectivity of colicin E1: modulation by pH and membrane composition, Bullock, J.O. 125:255
–, ion selectivity of colicin E1: II. permeability to organic cations, Bullock, J.O., Kolen, E.R., Shear, J.L. 128:1
Colon carcinoma
–, biphasic increase of apical Cl^- conductance by muscarinic stimulation of HT-29cl.19A human colon carcinoma cell line: evidence for activation of different Cl^- conductances by carbachol and forskolin, Bajnath, R.B., Dekker, K., Vaandrager, A.B., de Jonge, H.R., Groot, J.A. 127:81
–, electrophysiological studies of forskolin-induced changes in ion transport in the human colon carcinoma cell line HT-29 cl.19A: lack of evidence for a cAMP-activated basolateral K^+ conductance, Bajnath, R.B., Augeron, C., Laboisse, C.L., Bijman, J., de Jonge, H.R., Groot, J.A. 122:239
Colonic smooth muscle
–, spatial and temporal patterns of intracellular calcium in colonic smooth muscle, Mayer, E.A., Kodner, A., Sun, X.P., Wilkes, J., Scott, D., Sachs, G. 125:107
Compartmentation
–, ion fluxes in *Acetabularia*: Vesicular shuttle, Mummert, H., Gradmann, D. 124:255
Competitive inhibition
–, actions of cadmium on basolateral plasma membrane proteins involved in calcium uptake by fish intestine, Schoenmakers, T.J.M., Klaren, P.H.M., Flik, G., Lock, R.A.C., Pang, P.K.T., Bonga, S.E.W. 127:161
Compound 48/80
–, noise of secretagogue-induced inward currents dependent on extracellular calcium in rat mast cells, Kuno, M., Kimura, M. 128:53
Conductance
–, *Chara* plasmalemma at high pH: voltage dependence of the conductance at rest and during excitation, Beilby, M.J., Bisson, M.A. 125:25
–, chloride channels on epithelial cells cultured from human fetal epididymis, Pollard, C.E., Harris, A., Coleman, L., Argent, B.E. 124:275
–, effects of irreversible and reversible cholinesterase inhibitors on single acetylcholine-activated channels, Zorec, R., Scuka, M., Kordas, M. 125:41
–, ion channels in the plasma membrane of *Amaranthus* protoplasts: one cation and one anion channel dominate the con-

ductance, Terry, B.R., Tyerman, S.D., Findlay, G.P. 121:223
–, ion flow through membranes and the resting potential of cells, Offner, F.F. 123:171
–, multiple-channel conductance states and voltage regulation of embryonic chick cardiac gap junctions, Chen, Y., DeHaan, R.L. 127:95
Conformation
–, model ion channels: gramicidin and alamethicin, Woolley, G.A., Wallace, B.A. 129:109
Conformation-activity relationship
–, dimensions of the ion channel in neuronal nicotinic acetylcholine receptor as estimated from analysis of conformation-activity relationships of open-channel blocking drugs, Zhorov, B.S., Brovtsyna, N.B., Gmiro, V.E., Lukomskaya, N.Y., Serdyuk, S.E., Potapyeva, N.N., Magazanik, L.G., Kurenniy, D.E., Skok, V.I. 121:119
Connexin
–, incorporation of the gene for a cell-cell channel protein into transformed cells leads to normalization of growth, Mehta, P.P., Hotz-Wagenblatt, A., Rose, B., Shalloway, D., Loewenstein, W.R. 124:207
–, molecular cloning and expression of rat connexin40, a gap junction protein expressed in vascular smooth muscle, Beyer, E.C., Reed, K.E., Westphale, E.M., Kanter, H.L., Larson, D.M. 127:69
Connexons
–, reconstitution of channels from preparation enriched in lens gap junction protein MP70, Donaldson, P., Kistler, J. 129:155
Corn
–, whole-cell and single-channel currents across the plasmalemma of corn shoot suspension cells, Fairley, K., Laver, D., Walker, N.A. 121:11
Cotransport
–, electrogenic properties of the cloned Na^+/glucose cotransporter: I. voltage-clamp studies, Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M. 125:49
–, electrogenic properties of the cloned Na^+/glucose cotransporter: II. a transport model under nonrapid equilibrium conditions, Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M. 125:63
Crypt
–, localization of sodium absorption and chloride secretion in an intestinal epithelium, Holtug, K., Shipley, A., Datzer, V., Sten-Knudsen, O., Skadhauge, E. 122:215
Current activation
–, characterization of K^+ currents in rat malignant lymphocytes (Nb2 cells), Cukierman, S. 126:147
Current inactivation
–, characterization of K^+ currents in rat malignant lymphocytes (Nb2 cells), Cukierman, S. 126:147
–, slow inactivation of tetrodotoxin-insensitive Na^+ channels in neurons of rat dorsal root ganglia, Ogata, N., Tatebayashi, H. 129:71
Current noise
–, noise of secretagogue-induced inward currents dependent on extracellular calcium in rat mast cells, Kuno, M., Kimura, M. 128:53
Current-voltage relationship
–, *Chara* plasmalemma at high pH: voltage dependence of the conductance at rest and during excitation, Beilby, M.J., Bisson, M.A. 125:25
–, a negative slope in the current-voltage relationship of the Na^+/K^+ pump in *Xenopus* oocytes produced by reduction in external $[K^+]$, Rakowski, R.F., Vasilets, L.A., LaTona, J., Schwarz, W. 121:177
–, ion flow through membranes and the resting potential of cells, Offner, F.F. 123:171
–, regulation of endogenous and expressed Na^+/K^+ pumps in *Xenopus* oocytes by membrane potential and stimulation of protein kinases, Vasilets, L.A., Schwarz, W. 125:119
Cystic fibrosis
–, cAMP activation of CF-affected Cl^- conductance in both cell membranes of an absorptive epithelium, Reddy, M.M., Quinton, P.M. 130:49
Cytochrome P-450
–, activation of osmolyte efflux from cultured renal papillary epithelial cells, Furlong, T.J., Moriyama, T., Spring, K.R. 123:269
Cytokines
–, tumor necrosis factor inhibits K^+ current expression in cultured oligodendrocytes, Soliven, B., Szuchet, S., Nelson, D.J. 124:127
Cytoplasmic anionic environment
–, gating properties of cardiac Na^+ channels in cell-free conditions, Kohlhardt, M. 122:11
Cytoplasmic Ca^{2+} signals
–, cytoplasmic Ca^{2+} signals evoked by activation of cholecystokinin receptors: Ca^{2+}-dependent current recording in internally perfused pancreatic acinar cells, Wakui, M., Kase, H., Petersen, O.H. 124:179
Cytoplasmic chloride
–, cytoplasmic chloride regulates cation channels in the vacuolar membrane of plant cells, Pantoja, O., Dainty, J., Blumwald, E. 125:219
DBDS
–, conformational changes in human red cell membrane proteins induced by sugar binding, Janoshazi, A., Kifor, G., Solomon, A.K. 123:191
Demyelination
–, tumor necrosis factor inhibits K^+ current expression in cultured oligodendrocytes, Soliven, B., Szuchet, S., Nelson, D.J. 124:127
Depolarization
–, depolarization exposes the voltage sensor of the sodium channels to the extracellular region, Sammar, M., Spira, G., Meiri, H. 125:1
–, depolarization-induced calcium release from isolated triads measured with impermeant fura-2, Corbett, A.M., Bian, J., Wade, J.B., Schneider, M.F. 128:165
–, evidence that plasma membrane electrical potential is required for vesicular stomatitis virus infection of MDCK cells: a study using fluorescence measurements through polycarbonate supports, Akeson, M., Scharff, J., Sharp, C.M., Neville, D.M., Jr. 125:81
–, membrane potential modulates divalent cation entry in rat parotid acini, Mertz, L.M., Baum, B.J., Ambudkar, I.S. 126:183
–, membrane transport in stomatal guard cells: the importance of voltage control, Thiel, G., MacRobbie, E.A.C., Blatt, M.R. 126:1
–, quantitative analysis of depolarization-induced ATP release from mouse brain synaptosomes: external calcium dependent and independent processes, Fiedler, J.L., Pollard, H.B., Rojas, E. 127:21
–, role voltage-dependent ionic currents in coupling glucose

stimulation to insulin secretion in canine pancreatic islet B-cells, Pressel, D.M., Misler, S. 124:239
L-2,4-Diaminobutyrate
–, membrane transport properties of L-2,4-diaminobutyrate revisited, Christensen, H.N., Ronquist, G. 127:1
6-Diazo-5-oxo-L-norleucine (DON)
–, transport and membrane binding of the glutamine analogue 6-diazo-5-oxo-L-norleucine (DON) in *Xenopus laevis* oocytes, Taylor, P.M., Mackenzie, B., Hundal, H.S., Robertson, E., Rennie, M.J. 128:181
Diazoxide
–, ATP-sensitive K^+ conductance in pancreatic zymogen granules: block by glyburide and activation by diazoxide, Thévenod, F., Chathadi, K.V., Jiang, B., Hopfer, U. 129:253
N,N′-Dicyclohexylcarbodiimide (DCCD)
–, effects of inhibitors of ion-motive ATPases on the plasma membrane potential of murine erythroleukemia cells, Arcangeli, A., Del Bene, M.R., Becchetti, A., Wanke, E., Olivotto, M. 126:123
DIDS
–, anion channels from rat brain synaptosomal membranes incorporated into planar bilayers, Nomura, K., Sokabe, M. 124:53
–, anion-dependent transport of thallous ions through human erythrocyte membrane, Skulskii, I.A., Gusev, G.P., Sherstobitov, A.O., Manninen, V. 130:219
–, factors affecting chloride conductance in apical membrane vesicles from human placenta, Faller, D., Ryan, M.P. 130:227
–, kinetics of DIDS inhibition of swelling-activated K-Cl cotransport in low K sheep erythrocytes, Delpire, E., Lauf, P.K. 126:89
–, labeling of adipocyte membranes by sulfo-*N*-succinimidyl derivatives of long-chain fatty acids: inhibition of fatty acid transport, Harmon, C.M., Luce, P., Beth, A.H., Abumrad, N.A. 121:261
–, Na^+ dependent HCO_3^- transport and Na^+/H^+ exchange regulate pH_i in human ciliary muscle cells, Stahl, F., Lepple-Wienhues, A., Koch, M., Wiederholt, M. 127:215
–, osmolarity-sensitive release of free amino acids from cultured kidney cells (MDCK), Olea, R.S., Pasantes-Morales, H., Lázaro, Cereijido, M. 121:1
Dielectric constant
–, molecular environment of the phencyclidine binding site in the nicotinic acetylcholine receptor membrane, Palma, A.L., Wang, H.H. 122:143
Diethylpyrocarbonate
–, identification of an essential histidine residue at the active site of the tonoplast malate carrier in *Catharanthus roseus* cells, Dietz, K.J., Canut, H., Marigo, G. 129:137
–, response of chloride efflux from skeletal muscle of *Rana pipiens* to changes of temperature and membrane potential and diethylpyrocarbonate treatment, Spalding, B.C., Taber, P., Swift, J.G., Horowicz, P. 123:223
Diffusion model
–, sarcolemmal calcium binding sites in heart: II. mathematical model for diffusion of calcium released from the sarcoplasmic reticulum into the diadic region, Peskoff, A., Post, J.A., Langer, G.A. 129:59
Digital image analysis
–, Muscarinic responses of gastric parietal cells, Wilkes, J.M., Kajimura, M., Scott, D.R., Hersey, S.J., Sachs, G. 122: 97
Dihydropyridine
–, calcium-dependent control of volume regulation in renal proximal tubule cells: II. role of dihydropyridine-sensitive and -insensitive Ca^{2+} entry pathways, McCarty, N.A., O'Neil, R.G. 123:161
–, excitation-contraction coupling in a pre-vertebrate twitch muscle: the myotomes of *Branchiostoma lanceolatum*, Benterbusch, R., Herberg, F.W., Melzer, W., Thieleczek, R. 129:237
Diltiazem
–, diltiazem at high concentration increases the ionic permeability of biological membranes, Caretta, A., Sorbi, R.T., Stein, P.J., Tirindelli, R. 122:203
–, regulation of a potassium-selective current in rabbit corneal epithelium by cyclic GMP, carbachol and diltiazem, Farrugia, G., Rae, J.L. 129:99
Dimerization
–, dimerization constant and single-channel conductance of gramicidin in thylakoid membranes, Schönknecht, G., Althoff, G., Junge, W. 126:265
Dipalmitoyl phosphatidylcholine
–, effect of cholesterol and dipalmitoyl phosphatidylcholine enrichment on the kinetics of Na-Li exchange of human erythrocytes, Engelmann, B., Duhm, J. 122:231
Disaccharides
–, conformational changes in human red cell membrane proteins induced by sugar binding, Janoshazi, A., Kifor, G., Solomon, A.K. 123:191
Divalent cations
–, effects of Ca^{2+} and other divalent cations on K^+-evoked force production of slow muscle fibers from *Rana esculenta* and *Rana pipiens*, Krippeit-Drews, P., Schmidt, H. 129:211
–, elevation of cytostolic $[Ca^{2+}]$ due to intracellular Ca^{2+} release retards carbachol stimulation of divalent cation entry in rat parotid gland acinar cells, Hiramatsu, Y., Baum, B.J., Ambudkar, I.S. 129:277
–, differential sensitivity of pneumolysin-induced channels to gating by divalent cations, Korchev, Y.E., Bashford, C.L., Pasternak, C.A. 127:195
–, ionic effects on bumetaide binding to the activated Na/K/Cl cotransporter: selectivity and kinetics properties of ion binding sites, Hegde, R., Palfrey, H.C. 126:27
–, membrane potential modulates divalent cation entry in rat parotid acini, Mertz, L.M., Baum, B.J., Ambudkar, I.S. 126:183
Dog cortical tubules
–, substrate-induced modulation of ATP turnover in dog and rabbit proximal tubules, Noël, J., Tejedor, A., Vinay, P., Laprade, R. 128:205
Dorsal root ganglion
–, involvement of different S_4 parts in the voltage dependency of Na channel gating, Kra-Oz, Z., Spira, G., Palti, Y., Meiri, H. 129:189
–, slow inactivation of tetrodotoxin-insensitive Na^+ channels in neurons of rat dorsal root ganglia, Ogata, N., Tatebayashi, H. 129:71
DPI 201-106
–, differential response of DPI-modified cardiac Na^+ channels to antiarrhythmic drugs: no flicker blockade by lidocaine, Benz, I., Kohlhardt, M. 126:257
Drosophila
–, single-channel K^+ currents in *Drosophila* muscle and their pharmacological block, Gorczyca, M.G., Wu, C.F. 121: 237

Drug-induced blockade
–, Rat heart–,
responsiveness of cardiac Na^+ channels to antiarrhythmic drugs: the role of inactivation, Benz, I., Kohlhardt, M. 122:267
Dunaliella acidophila
–, characterization of a plasma membrane H^+-ATPase from the extremely acidophilic alga *Dunaliella acidophila*, Sekler, I., Gläser, H.U., Pick, U. 121:51
Eccrine clear cells
–, ionic basis of methacholine-induced shrinkage of dissociated eccrine clear cells, Suzuki, Y., Ohtsuyama, M., Samman, G., Sato, F., Sato, K. 123:33
Editorial
–, theory and experimentalism in biological sciences, Loewenstein, W.R. 129:1
Eel electroplax
–, depolarization exposes the voltage sensor of the sodium channels to the extracellular region, Sammar, M., Spira, G., Meiri, H. 125:1
–, involvement of different S_4 parts in the voltage dependency of Na channel gating, Kra-Oz, Z., Spira, G., Palti, Y., Meiri, H. 129:189
–, monoclonal antibodies raised against post-translational domains of the electroplax sodium channel, Ivey, S., Thornhill, W.B., Levinson, S.R. 121:215
Egg-laying hormone
–, hyperosmotic media inhibit voltage-dependent calcium influx and peptide release in *Aplysia* neurons, Loechner, K.J., Knox, R.J., Connor, J.A., Kaczmarek, L.K. 128:41
Ehrlich ascites tumor cells
–, cell swelling activates K^+ and Cl^+ channels as well as nonselective, stretch-activated cation channels in Ehrlich ascites tumor cells, Christensen, O., Hoffmann, E.K. 129:13
–, inability of Ehrlich ascites tumor cells to volume regulate following a hyperosmotic challenge, Levinson, C. 121:279
–, regulatory volume increase in Ehrlich ascites tumor cells is mediated by the 1Na : 1K : 2Cl cotransport system, Levinson, C. 126:277
–, sodium-dependent L-serine transport in plasma membrane vesicles isolated from Ehrlich cells by two-phase compartmentation, Luque, P., Márquez, J., Núñez, I., Medina, M.A. 123:247
Electrochromic dyes
–, response of the electrochromic dye, merocyanine 540, to membrane potential in rat liver mitochondria, Kalenak, A., McKenzie, R.J., Conover, T.E. 123:23
Electrochromic effects
–, charge translocation by the Na,K pump: II. ion binding and release at the extracellular face, Stürmer, W., Bühler, R., Apell, H.J., Läuger, P. 121:163
–, charge translocation by the Na,K-pump: I. kinetics of local field changes studied by time-resolved fluorescence measurements, Bühler, R., Stürmer, W., Apell, J.J., Läuger, P. 121:141
Electroconformational coupling
–, ion channel enzyme in an oscillating field, Markin, V.S., Liu, D., Gimsa, J., Strobel, R., Rosenberg, M.D., Tsong, T.Y. 126:137
Electrogenic properties
–, electrogenic properties of the cloned Na^+/glucose cotransporter: I. voltage-clamp studies, Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M. 125:49
–, electrogenic properties of the cloned Na^+/glucose cotransporter: II. a transport model under nonrapid equilibrium conditions, Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M. 125:63
Electrogenic transport
–, charge translocation by the Na,K pump: II. ion binding and release at the extracellular face, Stürmer, W., Bühler, R., Apell, H.J., Läuger, P. 121:163
–, charge translocation by the Na,K-pump: I. kinetics of local field changes studied by time-resolved fluorescence measurements, Bühler, R., Stürmer, W., Apell, J.J., Läuger, P. 121:141
Electron microscopy
–, localization of sodium absorption and chloride secretion in an intestinal epithelium, Holtug, K., Shipley, A., Datzer, V., Sten-Knudsen, O., Skadhauge, E. 122:215
Electron paramagnetic resonance
–, molecular environment of the phencyclidine binding site in the nicotinic acetylcholine receptor membrane, Palma, A.L., Wang, H.H. 122:143
Electron spin resonance
–, molecular environment of the phencyclidine binding site in the nicotinic acetylcholine receptor membrane, Palma, A.L., Wang, H.H. 122:143
Electrophorus electricus
–, reconstitution of sodium channels in large liposomes formed by the addition of acidic phospholipids and freeze-thaw sonication, Migual, V., Balbi, D., Castillo, C., Villegas, R. 129:37
Electrophysiology
–, Ba^{2+}-induced action potentials in osteoblastic cells, Ferrier, J., Grygorczyk, C., Grygorczyk, R., Kesthely, A., Lagan, E., Xia, S.L. 123:255
–, electrogenic properties of the cloned Na^+/glucose cotransporter: I. voltage-clamp studies, Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M. 125:49
–, electrogenic properties of the cloned Na^+/glucose cotransporter: II. a transport model under nonrapid equilibrium conditions, Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M. 125:63
–, electrophysiological studies of forskolin-induced changes in ion transport in the human colon carcinoma cell line HT-29 cl.19A: lack of evidence for a cAMP-activated basolateral K^+ conductance, Bajnath, R.B., Augeron, C., Laboisse, C.L., Bijman, J., de Jonge, H.R., Groot, J.A. 122:239
–, intracellular potassium activity in mammalian proximal tubule: effect of perturbations in transepithelial sodium transport, Laprade, R., Lapointe, J.Y., Breton, S., Duplain, M., Cardinal, J. 121:249
–, role voltage-dependent ionic currents in coupling glucose stimulation to insulin secretion in canine pancreatic islet B-cells, Pressel, D.M., Misler, S. 124:239
Electrostatic interactions
–, ion selectivity of colicin E1: II. permeability to organic cations, Bullock, J.O., Kolen, E.R., Shear, J.L. 128:1
Elodea densa
–, effect of high pH on the plasma membrane potential and conductance in *Elodea densa*, Miedema, H., Felle, H., Prins, H.B.A 128:63
Endocytic vesicles
–, flow cytometry and sorting of amphibian bladder endocytic vesicles containing ADH-sensitive water channels, van der Goot, F.G., Seigneur, A., Caucher, J.C., Ripoche, P. 128:133
Endocytosis
–, flow cytometry and sorting of amphibian bladder endocytic vesicles containing ADH-sensitive water channels, van der

Goot, F.G., Seigneur, A., Caucher, J.C., Ripoche, P. 128:133
–, molecular and cellular mechanisms involved in transepithelial transport, Schaerer, E., Neutra, M.R., Kraehenbuhl, J.-P. 123:93
Endoplasmic reticulum
–, calcium release and internal calcium regulation in acinar cells of exocrine glands, Marty, A. 124:189
Endosomes
–, effect of sulfhydryl compounds on ATP-stimulated H^+ transport and Cl^- uptake in rabbit renal cortical endosomes, Hilden, S.A., Madias, N.E. 124:139
Endothelial cells
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. I. effects of caffeine on intracellular Ca^{2+} stores, Thuringer, D., Sauvé 130:125
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. II. effects of thapsigargin on the cellular Ca^{2+} homeostasis, Thuringer, D., Sauvé, R. 130:139
–, angiotensin II, vasopressin and GTP[γ-S] inhibit inward-rectifying K^+ channels in porcine cerebral capillary endothelial cells, Hoyer, J., Popp, R., Meyer, J., Galla, H.J., Gögelein, H. 123:55
–, cation transport in vascular endothelial cells and aging, Adragna, N.C. 124:285
–, transient outwardly rectifying potassium channel in the rabbit corneal endothelium, Watsky, M.A., Cooper, K., Rae, J.L. 128:123
Enterocytes
–, cyclic GMP regulation of a voltage-activated K channel in dissociated enterocytes, O'Grady, S.M., Cooper, K.E., Rae, J.L. 124:159
Enzyme kinetic model
–, patch-clamp studies on the anomalous mole fraction effect of the K^+ channel in cytoplasmic droplets of *Nitella*: an attempt to distinguish between a multi-ion single-file pore and an enzyme kinetic model with lazy state, Draber, S., Schultze, R., Hansen, U.P. 123:183
Eosinophil major basic protein
–, interaction of eosinophil granule major basic protein with synthetic lipid bilayers: a mechanism for toxicity, Abu-Ghazaleh, R.I., Gleich, G.J., Prendergast, F.G. 128:153
Epidermal growth factor
–, epidermal growth factor receptor: elements of intracellular communication, Hernández-Sotomayor, S.M.T., Carpenter, G. 128:81
Epididymis
–, chloride channels on epithelial cells cultured from human fetal epididymis, Pollard, C.E., Harris, A., Coleman, L., Argent, B.E. 124:275
Epithelial cells
–, activation of osmolyte efflux from cultured renal papillary epithelial cells, Furlong, T.J., Moriyama, T., Spring, K.R. 123:269
–, chloride channels on epithelial cells cultured from human fetal epididymis, Pollard, C.E., Harris, A., Coleman, L., Argent, B.E. 124:275
–, effects of potassium-free media and ouabain on epithelial cell composition in toad urinary bladder studied with x-ray microanalysis, Bowler, J.M., Purves, R.D., Macknight, D.C. 123:115
–, pH regulation in tissue-cultured bovine lens epithelial cells, Williams, M.R., Duncan, G., Croghan, P.C., Riach, R., Webb, S.F. 129:179
–, regulation of a potassium-selective current in rabbit corneal epithelium by cyclic GMP, carbachol and diltiazem, Farrugia, G., Rae, J.L. 129:99
–, sodium-calcium exchange in renal epithelial cells: dependence on cell sodium and competitive inhibition by magnesium, Lyu, R.M., Smith, L., Smith, J.B. 124:73
–, whole-cell potassium current in rabbit corneal epithelium activated by fenamates, Rae, J.L., Farrugia, G. 129:81
Epithelial transport
–, urinary proteases degrade epithelial sodium channels, Lewis, S.A., Clausen, C. 122:77
Epithelium
–, cAMP activation of CF-affected Cl^- conductance in both cell membranes of an absorptive epithelium, Reddy, M.M., Quinton, P.M. 130:49
–, characterization of BADS-binding proteins in epithelial plasma membranes, Pearce, S.F.A., Zadunaisky, J.A. 123:235
–, molecular and cellular mechanisms involved in transepithelial transport, Schaerer, E., Neutra, M.R., Kraehenbuhl, J.-P. 123:93
–, Na^+ channel activity in cultured renal (A6) epithelium: regulation by solution osmolarity, Wills, N.K., Millinoff, L.P., Crowe, W.E. 121:79
–, Na^+ transport and impedance properties of cultured renal (A6 and 2F3) epithelia, Wills, N.K., Purcell, R.K., Clausen, C. 125:273
Epitope localization
–, localization of epitopes for antibodies that differentially label sodium channels in skeletal muscle surface and T-tubular membranes, Cohen S.A., Barchi, R.L. 128:219
Equivalent circuit analysis
–, Na^+ transport and impedance properties of cultured renal (A6 and 2F3) epithelia, Wills, N.K., Purcell, R.K., Clausen, C. 125:273
Erratum
–, *The Journal of Membrane Biology* 119:15-24 (1991), Van Houten, J.L., Cote, B.L., Zhang, J., Baez, J., Gagnon, M.L. 124:94
Erythrocytes
–, anion-dependent transport of thallous ions through human erythrocyte membrane, Skulskii, I.A., Gusev, G.P., Sherstobitov, A.O., Manninen, V. 130:219
–, effect of cholesterol and dipalmitoyl phosphatidylcholine enrichment on the kinetics of Na-Li exchange of human erythrocytes, Engelmann, B., Duhm, J. 122:231
–, intracellular free zinc and zinc buffering in human red blood cells, Simons, T.J.B. 123:63
–, measurement of exofacially reactive lysines in human erythrocyte band 3 using pyridoxal 5′-phosphate, Salhany, J.M. 121:91
ETH1810
–, lithium-selective permeation through lipid bilayer membranes mediated by a di-imide ionophore with nonsymmetrical imide substituents (ETH1810), Zeevi, A., Margalit, R. 121:133
Ethylisopropyl amiloride
–, inhibition of Ca-activated K^+ channels from renal microvillus membrane vesicles by amiloride analogs, Zweifach, A., Desir, G.V., Aronson, P.S., Giebisch, G. 128:115
Ethylmaltol
–, intracellular free zinc and zinc buffering in human red blood cells, Simons, T.J.B. 123:63
Excised patches
–, spontaneous activity of the light-dependent channel irre-

versibly induced in excised patches from *Limulus* ventral photoreceptors, Johnson, E.C., Bacigalupo, J. 130:33
Excitation simulation
–, action potentials in *Acetabularia*: measurement and simulation of voltage-gated fluxes, Mummert, H., Gradmann, D. 124:265
Excitation transients
–, *Chara* plasmalemma at high pH: voltage dependence of the conductance at rest and during excitation, Beilby, M.J., Bisson, M.A. 125:25
Excitation-contraction coupling
–, comparison of calcium release from sarcoplasmic reticulum of slow and fast twitch muscles, Lee, Y.S., Ondrias, K., Duhl, A.J., Ehrlich, B.E., Kim, D.H. 122:155
–, depolarization-induced calcium release from isolated triads measured with impermeant fura-2, Corbett, A.M., Bian, J., Wade, J.B., Schneider, M.F. 128:165
–, excitation-contraction coupling in a pre-vertebrate twitch muscle: the myotomes of *Branchiostoma lanceolatum*, Benterbusch, R., Herberg, F.W., Melzer, W., Thieleczek, R. 129:237
Excitation-secretion coupling
–, hyperosmotic media inhibit voltage-dependent calcium influx and peptide release in *Aplysia* neurons, Loechner, K.J., Knox, R.J., Connor, J.A., Kaczmarek, L.K. 128:41
Exocrine glands
–, calcium release and internal calcium regulation in acinar cells of exocrine glands, Marty, A. 124:189
Exocytosis
–, characterization of constitutive exocytosis in the yeast *Saccharomyces cerevisiae*, Lew, D.J., Simon, S.M. 123:261
Extracellular ATP
–, possible mechanism of ciliary stimulation by extracellular ATP: involvement of calcium-dependent potassium channels and exogenous Ca^{2+}, Weiss, T., Gheber, L., Shoshan-Barmatz, V., Priel, Z. 127:185
Extracellular calcium ions
–, noise of secretagogue-induced inward currents dependent on extracellular calcium in rat mast cells, Kuno, M., Kimura, M. 128:53
F channels
–, spontaneous activity of the light-dependent channel irreversibly induced in excised patches from *Limulus* ventral photoreceptors, Johnson, E.C., Bacigalupo, J. 130:33
2F3 cells
–, Na^+ transport and impedance properties of cultured renal (A6 and 2F3) epithelia, Wills, N.K., Purcell, R.K., Clausen, C. 125:273
Fast sampling rapid filtration apparatus
–, analysis of kinetic data in transport studies: new insights from kinetic studies of Na^+-D-glucose cotransport in human intestinal brush-border membrane vesicles using a fast sampling, rapid filtration apparatus, Malo, C., Berteloot, A. 122:127
–, fast sampling, rapid filtration apparatus: principal characteristics and validation from studies of D-glucose transport in human jejunal brush-border membrane vesicles, Berteloot, A., Malo, C., Breton, S., Brunette, M. 122:111
Fast twitch muscle
–, comparison of calcium release from sarcoplasmic reticulum of slow and fast twitch muscles, Lee, Y.S., Ondrias, K., Duhl, A.J., Ehrlich, B.E., Kim, D.H. 122:155
Fatty acid transport
–, labeling of adipocyte membranes by sulfo-*N*-succinimidyl derivatives of long-chain fatty acids: inhibition of fatty acid transport, Harmon, C.M., Luce, P., Beth, A.H., Abumrad, N.A. 121:261
Fatty acids
–, factors affecting chloride conductance in apical membrane vesicles from human placenta, Faller, D., Ryan, M.P. 130:227
Feedback regulation
–, regulation of principal cell pH by Na/H exchange in rabbit cortical collecting tubule, Silver, R.B., Frindt, G., Palmer, L.G. 125:13
Fenamates
–, whole-cell potassium current in rabbit corneal epithelium activated by fenamates, Rae, J.L., Farrugia, G. 129:81
Firefly luciferase
–, targeting of proteins into the peroxisomal matrix, Subramani, S. 125:99
Flicker blockade
–, differential response of DPI-modified cardiac Na^+ channels to antiarrhythmic drugs: no flicker blockade by lidocaine, Benz, I., Kohlhardt, M. 126:257
Flicker kinetics
–, a TEA-insensitive flickering potassium channel active around the resting potential in myelinated nerve, Koh, D.S., Jonas, P., Bräu, M.E., Vogel, W. 130:149
Flow cytometry
–, flow cytometry and sorting of amphibian bladder endocytic vesicles containing ADH-sensitive water channels, van der Goot, F.G., Seigneur, A., Caucher, J.C., Ripoche, P. 128:133
Fluid mosaic model
–, the structure and function of membranes—a personal memoir, Singer, S J. 129:3
Fluorescence measurements
–, charge translocation by the Na,K pump: II. ion binding and release at the extracellular face, Stürmer, W., Bühler, R., Apell, H.J., Läuger, P. 121:163
–, charge translocation by the Na,K-pump: I. kinetics of local field changes studied by time-resolved fluorescence measurements, Bühler, R., Stürmer, W., Apell, J.J., Läuger, P. 121:141
–, evidence that plasma membrane electrical potential is required for vesicular stomatitis virus infection of MDCK cells: a study using fluorescence measurements through polycarbonate supports, Akeson, M., Scharff, J., Sharp, C.M., Neville, D.M., Jr. 125:81
–, extrusion of calcium from a single isolated neuron of the snail *Helix pomatia*, Tepikin, A.V., Kostyuk, P.G., Snitsarev, V.A., Belan, P.V. 123:43
–, interaction of eosinophil granule major basic protein with synthetic lipid bilayers: a mechanism for toxicity, Abu-Ghazaleh, R.I., Gleich, G.J., Prendergast, F.G. 128:153
Forskolin
–, biphasic increase of apical Cl^- conductance by muscarinic stimulation of HT-29cl.19A human colon carcinoma cell line: evidence for activation of different Cl^- conductances by carbachol and forskolin, Bajnath, R.B., Dekker, K., Vaandrager, A.B., de Jonge, H.R., Groot, J.A. 127:81
–, chloride channels on epithelial cells cultured from human fetal epididymis, Pollard, C.E., Harris, A., Coleman, L., Argent, B.E. 124:275
–, electrophysiological studies of forskolin-induced changes in ion transport in the human colon carcinoma cell line HT-29 cl.19A: lack of evidence for a cAMP-activated basolateral K^+ conductance, Bajnath, R.B., Augeron, C., Laboisse, C.L., Bijman, J., de Jonge, H.R., Groot, J.A. 122:239

Freeze-thaw sonication
–, reconstitution of sodium channels in large liposomes formed by the addition of acidic phospholipids and freeze-thaw sonication. Migual, V., Balbi, D., Castillo, C., Villegas, R. 129:37
Frog bladder
–, flow cytometry and sorting of amphibian bladder endocytic vesicles containing ADH-sensitive water channels, van der Goot, F.G., Seigneur, A., Caucher, J.C., Ripoche, P. 128:133
Frog muscle
–, response of chloride efflux from skeletal muscle of *Rana pipiens* to changes of temperature and membrane potential and diethylpyrocarbonate treatment, Spalding, B.C., Taber, P., Swift, J.G., Horowicz, P. 123:223
–, skeletal muscle ATP-sensitive K^+ channels recorded from sarcolemmal blebs of split fibers: ATP inhibition is reduced by magnesium and ADP, Vivaudou, M.B., Arnoult, C., Villaz, M. 122:165
Frog skin
–, Ca^{2+}-independent form of protein kinase C may regulate Na^+ transport across frog skin, Civan, M.M., Oler, A., Peterson-Yantorno, K., George, K., O'Brien, T.G. 121:37
–, intracellular ion concentrations in the isolated frog skin epithelium: evidence for different types of mitochondria-rich cells, Rick, R. 127:227
–, papaverine reduces the sodium permeability of the apical membrane and the potassium permeability of the basolateral membrane in isolated frog skin, Andersen, H., Nielsen, R. 126:235
Frog slow muscle fibers
–, effects of Ca^{2+} and other divalent cations on K^+-evoked force production of slow muscle fibers from *Rana esculenta* and *Rana pipiens*, Krippeit-Drews, P., Schmidt, H. 129:211
Fura
–, depolarization-induced calcium release from isolated triads measured with impermeant fura-2, Corbett, A.M., Bian, J., Wade, J.B., Schneider, M.F. 128:165
–, extrusion of calcium from a single isolated neuron of the snail *Helix pomatia*, Tepikin, A.V., Kostyuk, P.G., Snitsarev, V.A., Belan, P.V. 123:43
Furosemide
–, anion-dependent transport of thallous ions through human erythrocyte membrane, Skulskii, I.A., Gusev, G.P., Sherstobitov, A.O., Manninen, V. 130:219
Fusicoccin
–, characterization of a plasma membrane H^+-ATPase from the extremely acidophilic alga *Dunaliella acidophila*, Sekler, I., Gläser, H.U., Pick, U. 121:51
Fusion
–, effects of osmotic stress on mast cell vesicles of the beige mouse, Brodwick, M.S., Curran, M., Edwards, C. 126:159
Fusion peptides
–, membrane destabilization by N-terminal peptides of viral envelope proteins, Düzgüneş, N., Shavnin, S.A. 128:71
G protein
–, angiotensin II directly increases rabbit renal brush-border membrane sodium transport: presence of local signal transduction system, Morduchowicz, G.A., Sheikh-Hamad, D., Dwyer, B.E., Stern, N., Jo, O.D., Yanagawa, N. 122:43
–, apical and basolateral effects of PTH in OK cells: transport inhibition, messenger production, effects of pertussis toxin, and interaction with a PTH analog, Reshkin, S.J., Forgo, J., Murer, H. 124:227
–, assembly and sealing of tight junctions: possible participation of G-proteins, phospholipase C, protein kinase C and calmodulin, Balda, M.S., González-Mariscal, L., Contreras, R.G., Macias-Silva, M., Toress-Marquez, M.E., Sáinz, J.A.G., Cereijido, M. 122:193
–, G-protein activators induce a potassium conductance in murine macrophages, McKinney, L.C., Gallin, E.K. 130:265
–, pertussis toxin stimulation of catecholamine release from adrenal medullary chromaffin cells: mechanism may be by direct activation of L-type and G-type calcium channels, Ceña, V., Brocklehurst, K.W., Pollard, H.B., Rojas, E. 122:23
Gap junction protein
–, molecular cloning and expression of rat connexin40, a gap junction protein expressed in vascular smooth muscle, Beyer, E.C., Reed, K.E., Westphale, E.M., Kanter, H.L., Larson, D.M. 127:69
Gap junctions
–, effects of the anesthetics heptanol, halothane and isoflurane on gap junction conductance in crayfish septate axons: a calcium- and hydrogen-independent phenomenon potentiated by caffeine and theophylline, and inhibited by 4-aminopyridine, Peracchia, C. 121:67
–, incorporation of the gene for a cell-cell channel protein into transformed cells leads to normalization of growth, Mehta, P.P., Hotz-Wagenblatt, A., Rose, B., Shalloway, D., Loewenstein, W.R. 124:207
–, multiple-channel conductance states and voltage regulation of embryonic chick cardiac gap junctions, Chen, Y., DeHaan, R.L. 127:95
–, reconstitution of channels from preparation enriched in lens gap junction protein MP70, Donaldson, P., Kistler, J. 129:155
–, single-membrane and cell-to-cell permeability properties of dissociated embryonic chick lens cells, Miller, A.G., Zampighi, G.A., Hall, J.E. 128:91
Gas dissection
–, sarcolemmal calcium binding sites in heart: I. molecular origin in "gas-dissected" sarcolemma, Post, J.A., Langer, G.A. 129:49
Gastric glands
–, Muscarinic responses of gastric parietal cells, Wilkes, J.M., Kajimura, M., Scott, D.R., Hersey, S.J., Sachs, G. 122:97
Gating properties
–, gating properties of cardiac Na^+ channels in cell-free conditions, Kohlhardt, M. 122:11
Gel matrix
–, effects of osmotic stress on mast cell vesicles of the beige mouse, Brodwick, M.S., Curran, M., Edwards, C. 126:159
Gene expression regulation
–, tissue-specific expression of the voltage-sensitive sodium channel, Mandel, G. 125:193
GH3 cells
–, calcium-activated chloride conductance of lactotrophs: comparison of activation in normal and tumoral cells during thyrotropin-releasing-hormone stimulation, Sartor, P., Dufy-Barbe, L., Vacher, P., Dufy, B. 126:39
Glibenclamide
–, skeletal muscle ATP-sensitive K^+ channels recorded from sarcolemmal blebs of split fibers: ATP inhibition is reduced by magnesium and ADP, Vivaudou, M.B., Arnoult, C., Villaz, M. 122:165
Glomerulosa cell
–, background calcium permeable channels in glomerulosa cells from adrenal gland, Durroux, T., Gallo-Payet, N., Bilodeau, L., Payet, M.D. 129:145

Glucocorticoids
–, characterization by photoaffinity labeling of a steroid binding protein in rat liver plasma membrane, Ibarrola, I., Alejandro, A., Marino, A., Sancho, M.J., Macarulla, J.M., Trueba, M. 125:185
Glucose
–, comparison of the properties of the ATP-sensitive K^+ channels of pancreatic β-cells of lean and obese (ob/ob) CC57BL/6J mice, Fournier, L., Bégin-Heick, N., Whitfield, J.F., Schwartz, J.L. 129:267
Glucose transport
–, analysis of kinetic data in transport studies: new insights from kinetic studies of Na^+-D-glucose cotransport in human intestinal brush-border membrane vesicles using a fast sampling, rapid filtration apparatus, Malo, C., Berteloot, A. 122:127
–, fast sampling, rapid filtration apparatus: principal characteristics and validation from studies of D-glucose transport in human jejunal brush-border membrane vesicles, Berteloot, A., Malo, C., Breton, S., Brunette, M. 122:111
Glucose transport protein
–, conformational changes in human red cell membrane proteins induced by sugar binding, Janoshazi, A., Kifor, G., Solomon, A.K. 123:191
Glutamine
–, transport and membrane binding of the glutamine analogue 6-diazo-5-oxo-L-norleucine (DON) in *Xenopus laevis* oocytes, Taylor, P.M., Mackenzie, B., Hundal, H.S., Robertson, E., Rennie, M.J. 128:181
γ-Glutamyltranspeptidase
–, purification and characterization of the apical plasma membrane of the rat pancreatic acinar cell, Paul, E., Hurtubise, Y., LeBel, D. 127:129
Glyburide
–, ATP-sensitive K^+ conductance in pancreatic zymogen granules: block by glyburide and activation by diazoxide, Thévenod, F., Chathadi, K.V., Jiang, B., Hopfer, U. 129:253
Gramicidin
–, dimerization constant and single-channel conductance of gramicidin in thylakoid membranes, Schönknecht, G., Althoff, G., Junge, W. 126:265
–, model ion channels: gramicidin and alamethicin, Woolley, G.A., Wallace, B.A. 129:109
Growth control
–, incorporation of the gene for a cell-cell channel protein into transformed cells leads to normalization of growth, Mehta, P.P., Hotz-Wagenblatt, A., Rose, B., Shalloway, D., Loewenstein, W.R. 124:207
GTP-binding proteins
–, angiotensin II directly increases rabbit renal brush-border membrane sodium transport: presence of local signal transduction system, Morduchowicz, G.A., Sheikh-Hamad, D., Dwyer, B.E., Stern, N., Jo, O.D., Yanagawa, N. 122:43
–, association of a 19- and a 21-kDa GTP-binding protein to pancreatic microsomal vesicles is regulated by the intravesicular pH established by a vacuolar-type H^+-ATPase, Zeuzem, S., Zimmermann, P., Schulz, I. 125:231
Guanosine 5′-diphosphate
–, inner mitochondrial membrane anion channel is present in brown adipocytes but is not identical with the uncoupling protein, Klitsch, T., Siemen, D. 122:69
Guanosine 5′-[γ-thio]triphosphate
–, angiotensin II, vasopressin and GTP[γ-S] inhibit inward-rectifying K^+ channels in porcine cerebral capillary endothelial cells, Hoyer, J., Popp, R., Meyer, J., Galla, H.J., Gögelein, H. 123:55
–, cytoplasmic Ca^{2+} signals evoked by activation of cholecystokinin receptors: Ca^{2+}-dependent current recording in internally perfused pancreatic acinar cells, Wakui, M., Kase, H., Petersen, O.H. 124:179
–, variety of Ca^{2+}-permeable channels in human carcinoma A431 cells, Mozhaycva, G.N., Naumov, A.P., Kuryshev, Y.A. 124:113
Guinea pig
–, whole-cell K^+ current activation in response to voltages and carbachol in gastric parietal cells isolated from guinea pig, Kotera, T., Hashimoto, A., Ueda, S., Okada, Y. 124:43
Guinea pig heart
–, a naphthyl analog of the aminostyryl pyridinium class of potentiometric membrane dyes shows consistent sensitivity in a variety of tissue, cell, and model membrane preparations, Loew, L.M., Cohen, L.B., Dix, J., Fluhler, E.N., Montana, V., Salama, G., Jian-young, W. 130:1
–, permeance of Cs^+ and Rb^+ through the inwardly rectifying K^+ channels in guinea pig ventricular myocytes, Mitra, R.L., Morad, M. 122:33
H^+-ATPase
–, association of a 19- and a 21-kDa GTP-binding protein to pancreatic microsomal vesicles is regulated by the intravesicular pH established by a vacuolar-type H^+-ATPase, Zeuzem, S., Zimmermann, P., Schulz, I. 125:231
–, characterization of a plasma membrane H^+-ATPase from the extremely acidophilic alga *Dunaliella acidophila*, Sekler, I., Gläser, H.U., Pick, U. 121:51
–, effect of sulfhydryl compounds on ATP-stimulated H^+ transport and Cl^- uptake in rabbit renal cortical endosomes, Hilden, S.A., Madias, N.E. 124:139
–, H^+ extrusion by an apical vacuolar-type H^+-ATPase in rat renal proximal tubules, Zimolo, Z., Montrose, M.H., Murer, H. 126:19
–, ion channel gating in plants: physiological implications and integration for stomatal function, Blatt, M.R. 124:95
–, membrane transport in stomatal guard cells: the importance of voltage control, Thiel, G., MacRobbie, E.A.C., Blatt, M.R. 126:1
–, substrate-induced modulation of ATP turnover in dog and rabbit proximal tubules, Noël, J., Tejedor, A., Vinay, P., Laprade, R. 128:205
Haementeria
–, modulation of inwardly rectifying Na^+-K^+ channels by serotonin and cyclic nucleotides in salivary gland cells of the leech, *Haementeria*, Wuttke, W.A., Berry, M.S. 127:57
Halothane
–, effects of the anesthetics heptanol, halothane and isoflurane on gap junction conductance in crayfish septate axons: a calcium- and hydrogen-independent phenomenon potentiated by caffeine and theophylline, and inhibited by 4-aminopyridine, Peracchia, C. 121:67
Helix pomatia
–, extrusion of calcium from a single isolated neuron of the snail *Helix pomatia*, Tepikin, A.V., Kostyuk, P.G., Snitsarev, V.A., Belan, P.V. 123:43
Hemoglobin S polymerization
–, osmotic effects of protein polymerization analysis of volume changes in sickle cell anemia red cells following deoxyhemoglobin S polymerization, Lew, V.L., Bookchin, R.M. 122:55
Heparin
–, cytoplasmic Ca^{2+} signals evoked by activation of cholecys-

tokinin receptors: Ca^{2+}-dependent current recording in internally perfused pancreatic acinar cells, Wakui, M., Kase, H., Petersen, O.H. 124:179
Heptanol
–, effects of the anesthetics heptanol, halothane and isoflurane on gap junction conductance in crayfish septate axons: a calcium- and hydrogen-independent phenomenon potentiated by caffeine and theophylline, and inhibited by 4-aminopyridine, Peracchia, C. 121:67
Hexose transport
–, substrate-induced modulation of ATP turnover in dog and rabbit proximal tubules, Noël, J., Tejedor, A., Vinay, P., Laprade, R. 128:205
Histidine
–, identification of an essential histidine residue at the active site of the tonoplast malate carrier in *Catharanthus roseus* cells, Dietz, K.J., Canut, H., Marigo, G. 129:137
HIT cells
–, two sites for adenine-nucleotide regulation of ATP-sensitive potassium channels in mouse pancreatic β-cells and HIT cells, Hopkins, W.F., Fatherazi, S., Peter-Riesch, B., Corkey, B.E., Cook, D.L 129:287
Hordeum vulgare cv. gerbel
–, partial purification of a potassium channel with low permeability for sodium from tonoplast membranes of *Hordeum vulgare* cv. gerbel, Klughammer, B., Betz, M., Benz, R., Dietz, K.J. 128:17
HT-29cl.19A cell line
–, biphasic increase of apical Cl^- conductance by muscarinic stimulation of HT-29cl.19A human colon carcinoma cell line: evidence for activation of different Cl^- conductances by carbachol and forskolin, Bajnath, R.B., Dekker, K., Vaandrager, A.B., de Jonge, H.R., Groot, J.A. 127:81
Human colonic cell line
–, anion and cation permeability of a large conductance anion channel in the T84 human colonic cell line, Vaca, L., Kunze, D.L. 130:241
Human intestine
–, analysis of kinetic data in transport studies: new insights from kinetic studies of Na^+-D-glucose cotransport in human intestinal brush-border membrane vesicles using a fast sampling, rapid filtration apparatus, Malo, C., Berteloot, A. 122:127
–, fast sampling, rapid filtration apparatus: principal characteristics and validation from studies of D-glucose transport in human jejunal brush-border membrane vesicles, Berteloot, A., Malo, C., Breton, S., Brunette, M. 122:111
Human platelet
–, rapid Ca^{2+} extrusion via the Na^+/Ca^{2+} exchanger of the human platelet, Valant, P.A., Adjei, P.N., Haynes, D.H. 130:63
Human red cells
–, calcium-dependent zinc efflux in human red blood cells, Simons, T.J.B. 123:73
–, intracellular free zinc and zinc buffering in human red blood cells, Simons, T.J.B. 123:63
Hydrochlorothiazide
–, nature of the neutral Na^+-Cl^- coupled entry at the apical membrane of rabbit gallbladder epithelium: IV. Na^+/H^+, Cl^-/HCO_3^- double exchange, hydrochlorothiazide-sensitive Na^+-Cl^- symport and Na^+-K^+-$2Cl^-$ cotransport are all involved, Cremaschi, D., Porta, C., Bottà, G., Meyer, G. 129:221
Hydrogen ion extrusion
–, H^+ extrusion by an apical vacuolar-type H^+-ATPase in rat renal proximal tubules, Zimolo, Z., Montrose, M.H., Murer, H. 126:19
Hydrogen ion transport
–, effect of sulfhydryl compounds on ATP-stimulated H^+ transport and Cl^- uptake in rabbit renal cortical endosomes, Hilden, S.A., Madias, N.E. 124:139
5-Hydroxytryptamine
–, modulation of inwardly rectifying Na^+-K^+ channels by serotonin and cyclic nucleotides in salivary gland cells of the leech, *Haementeria*, Wuttke, W.A., Berry, M.S. 127:57
Hyperosmolality
–, inability of Ehrlich ascites tumor cells to volume regulate following a hyperosmotic challenge, Levinson, C. 121:279
Hyperosmotic media
–, hyperosmotic media inhibit voltage-dependent calcium influx and peptide release in *Aplysia* neurons, Loechner, K.J., Knox, R.J., Connor, J.A., Kaczmarek, L.K. 128:41
Hypoosmotic stress
–, specific protein phosphorylation occurs in molluscan red blood cell ghosts in response to hypoosmotic stress, Politis, A.D., Pierce, S.K. 124:169
Hyposmolarity
–, activation of amino acid diffusion by a volume increase in cultured kidney (MDCK) cells, Roy, G., Malo, C. 130:83
Hypotonic media
–, activation of K^+ and CL^- channels in MDCK cells during volume regulation in hypotonic media, Banderali, U., Roy, G. 126:219
Immunoprecipitation
–, depolarization exposes the voltage sensor of the sodium channels to the extracellular region, Sammar, M., Spira, G., Meiri, H. 125:1
Impedance analysis
–, Na^+ transport and impedance properties of cultured renal (A6 and 2F3) epithelia, Wills, N.K., Purcell, R.K., Clausen, C. 125:273
Indo-1
–, calcium influx and intracellular calcium release in anti-CD3 antibody-stimulated and thapsigargin-treated human T lymphoblasts, Sarkadi, B., Tordai, A., Homolya, L., Scharff, O., Gárdos, G. 123:9
Influenza hemagglutinin
–, membrane destabilization by N-terminal peptides of viral envelope proteins, Düzgüneş, N., Shavnin, S.A. 128:71
Inositol trisphosphate
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. I. effects of caffeine on intracellular Ca^{2+} stores, Thuringer, D., Sauvé 130: 125
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. II. effects of thapsigargin on the cellular Ca^{2+} homeostasis, Thuringer, D., Sauvé, R. 130:139
–, ATP activates a Ca^{2+}-dependent Cl^- current in the rat thyroid cell line, FRTL-5, Martin, S.C. 125:243
–, calcium release and internal calcium regulation in acinar cells of exocrine glands, Marty, A. 124:189
–, IP_3- and cAMP-induced responses in isolated olfactory receptor neurons from the channel catfish, Miyamoto, T., Restrepo, D., Cragoe, E.J., Jr., Teeter, J.H. 127:173
–, variety of Ca^{2+}-permeable channels in human carcinoma A431 cells, Mozhayeva, G.N., Naumov, A.P., Kuryshev, Y.A. 124:113
Insulin-secreting cells
–, activation of voltage-sensitive Ca^{2+} currents by vasopressin

in an insulin-secreting cell line, Thorn, P., Petersen, O.H. 124:63
Insulin secretion
–, comparison of the properties of the ATP-sensitive K^+ channels of pancreatic β-cells of lean and obese (ob/ob) CC57BL/6J mice, Fournier, L., Bégin-Heick, N., Whitfield, J.F., Schwartz, J.L. 129:267
Integral proteins
–, the structure and function of membranes—a personal memoir, Singer, S J. 129:3
Intercellular communication
–, incorporation of the gene for a cell-cell channel protein into transformed cells leads to normalization of growth, Mehta, P.P., Hotz-Wagenblatt, A., Rose, B., Shalloway, D., Loewenstein, W.R. 124:207
Interleukin 1
–, lipopolysaccharide induction of outward potassium current expression in human monocyte-derived macrophages: lack of correlation with secretion, Nelson, D.J., Jow, B., Jow, F. 125:207
Interleukin 2
–, lipopolysaccharide induction of outward potassium current expression in human monocyte-derived macrophages: lack of correlation with secretion, Nelson, D.J., Jow, B., Jow, F. 125:207
Intestinal epithelium
–, localization of sodium absorption and chloride secretion in an intestinal epithelium, Holtug, K., Shipley, A., Datzer, V., Sten-Knudsen, O., Skadhauge, E. 122:215
Intracellular cadmium ions
–, actions of cadmium on basolateral plasma membrane proteins involved in calcium uptake by fish intestine, Schoenmakers, T.J.M., Klaren, P.H.M., Flik, G., Lock, R.A.C., Pang, P.K.T., Bonga, S.E.W. 127:161
Intracellular calcium
–, calcium-dependent control of volume regulation in renal proximal tubule cells: I. swelling-activated Ca^{2+} entry and release, McCarty, N.A., O'Neil, R.G. 123:149
–, calcium-dependent control of volume regulation in renal proximal tubule cells: II. role of dihydropyridine-sensitive and -insensitive Ca^{2+} entry pathways, McCarty, N.A., O'Neil, R.G. 123:161
–, calcium influx and intracellular calcium release in anti-CD3 antibody-stimulated and thapsigargin-treated human T lymphoblasts, Sarkadi, B., Tordai, A., Homolya, L., Scharff, O., Gárdos, G. 123:9
–, extrusion of calcium from a single isolated neuron of the snail *Helix pomatia*, Tepikin, A.V., Kostyuk, P.G., Snitsarev, V.A., Belan, P.V. 123:43
–, membrane potential modulates divalent cation entry in rat parotid acini, Mertz, L.M., Baum, B.J., Ambudkar, I.S. 126:183
–, muscarinic responses of gastric parietal cells, Wilkes, J.M., Kajimura, M., Scott, D.R., Hersey, S.J., Sachs, G. 122:97
Intracellular calcium ions
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. I. effects of caffeine on intracellular Ca^{2+} stores, Thuringer, D., Sauvé 130: 125
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. II. effects of thapsigargin on the cellular Ca^{2+} homeostasis, Thuringer, D., Sauvé, R. 130:139
–, activation of K^+ channels by lanthanum contributes to the block of transmitter release in chick and rat sympathetic neurons, Przywara, D.A., Bhave, S.V., Bhave, A., Chowdhury, P.S., Wakade, T.D., Wakade, A.R. 125:155
–, ATP activates a Ca^{2+}-dependent Cl^- current in the rat thyroid cell line, FRTL-5, Martin, S.C. 125:243
–, effects of the anesthetics heptanol, halothane and isoflurane on gap junction conductance in crayfish septate axons: a calcium- and hydrogen-independent phenomenon potentiated by caffeine and theophylline, and inhibited by 4-aminopyridine, Peracchia, C. 121:67
–, elevation of cytostolic $[Ca^{2+}]$ due to intracellular Ca^{2+} release retards carbachol stimulation of divalent cation entry in rat parotid gland acinar cells, Hiramatsu, Y., Baum, B.J., Ambudkar, I.S. 129:277
–, evidence that plasma membrane electrical potential is required for vesicular stomatitis virus infection of MDCK cells: a study using fluorescence measurements through polycarbonate supports, Akeson, M., Scharff, J., Sharp, C.M., Neville, D.M., Jr. 125:81
–, spatial and temporal patterns of intracellular calcium in colonic smooth muscle, Mayer, E.A., Kodner, A., Sun, X.P., Wilkes, J., Scott, D., Sachs, G. 125:107
Intracellular communication
–, epidermal growth factor receptor: elements of intracellular communication, Hernández-Sotomayor, S.M.T., Carpenter, G. 128:81
Intracellular ion concentrations
–, Cl^- channels in basolateral renal medullary vesicles: V. comparison of basolateral mTALH Cl^- channels with apical Cl^- channels from jejunum and trachea, Winters, C.J., Reeves, W.B., Andreoli, T.E. 128:27
–, intracellular ion concentrations in the isolated frog skin epithelium: evidence for different types of mitochondria-rich cells, Rick, R. 127:227
Intracellular pH
–, K-induced alkalinization in all cell types of rabbit gastric glands: a novel K/H exchange mechanism, Hofer, A.M., Machen, T.E. 126:245
–, Na^+ dependent HCO_3^- transport and Na^+/H^+ exchange regulate pH_i in human ciliary muscle cells, Stahl, F., Lepple-Wienhues, A., Koch, M., Wiederholt, M. 127:215
–, pH regulation in tissue-cultured bovine lens epithelial cells, Williams, M.R., Duncan, G., Croghan, P.C., Riach, R., Webb, S.F. 129:179
–, regulation of cytoplasmic pH in rat sublingual mucous acini at rest and during muscarinic stimulation, Zhang, G.H., Cragoe, E.J., Jr., Melvin, J.E. 129:311
–, substrate-induced modulation of ATP turnover in dog and rabbit proximal tubules, Noël, J., Tejedor, A., Vinay, P., Laprade, R. 128:205
Intracellular potassium activity
–, intracellular potassium activity in mammalian proximal tubule: effect of perturbations in transepithelial sodium transport, Laprade, R., Lapointe, J.Y., Breton, S., Duplain, M., Cardinal, J. 121:249
Intracellular sodium
–, regulation of principal cell pH by Na/H exchange in rabbit cortical collecting tubule, Silver, R.B., Frindt, G., Palmer, L.G. 125:13
Intracellular zinc ions
–, intracellular free zinc and zinc buffering in human red blood cells, Simons, T.J.B. 123:63
Invertebrate red cells
–, specific protein phosphorylation occurs in molluscan red blood cell ghosts in response to hypoosmotic stress, Politis, A.D., Pierce, S.K. 124:169

Inward currents
–, noise of secretagogue-induced inward currents dependent on extracellular calcium in rat mast cells, Kuno, M., Kimura, M. 128:53
Inward rectifying channels
–, angiotensin II, vasopressin and GTP[γ-S] inhibit inward-rectifying K^+ channels in porcine cerebral capillary endothelial cells, Hoyer, J., Popp, R., Meyer, J., Galla, H.J., Gögelein, H. 123:55
–, inhibition of inward rectifying tonoplast channels by a vacuolar factor: physiological and kinetic implications, Maathuis, F.J.M., Prins, B.A. 122:251
–, modulation of inwardly rectifying Na^+-K^+ channels by serotonin and cyclic nucleotides in salivary gland cells of the leech, *Haementeria*, Wuttke, W.A., Berry, M.S. 127:57
–, permeance of Cs^+ and Rb^+ through the inwardly rectifying K^+ channels in guinea pig ventricular myocytes, Mitra, R.L., Morad, M. 122:33
–, whole-cell K^+ current activation in response to voltages and carbachol in gastric parietal cells isolated from guinea pig, Kotera, T., Hashimoto, A., Ueda, S., Okada, Y. 124:43
Inward rectifying currents
–, cytoplasmic chloride regulates cation channels in the vacuolar membrane of plant cells, Pantoja, O., Dainty, J., Blumwald, E. 125:219
–, inwardly rectifying potassium current in rabbit osteoclasts: a whole-cell and single-channel study, Kelly, M.E.M., Dixon, S.J., Sims, S.M. 126:171
Ion binding sites
–, ionic effects on bumetaide binding to the activated Na/K/Cl cotransporter: selectivity and kinetics properties of ion binding sites, Hegde, R., Palfrey, H.C. 126:27
Ion channel activation
–, activation of K^+ and CL^- channels in MDCK cells during volume regulation in hypotonic media, Banderali, U., Roy, G. 126:219
–, activation of K^+ channels by lanthanum contributes to the block of transmitter release in chick and rat sympathetic neurons, Przywara, D.A., Bhave, S.V., Bhave, A., Chowdhury, P.S., Wakade, T.D., Wakade, A.R. 125:155
–, ion channel gating in plants: physiological implications and integration for stomatal function, Blatt, M.R. 124:95
–, ion channels activated by swelling of Madin Darby canine kidney (MDCK) cells, Weiss, H., Lang, F. 126:109
Ion channel enzyme
–, ion channel enzyme in an oscillating field, Markin, V.S., Liu, D., Gimsa, J., Strobel, R., Rosenberg, M.D., Tsong, T.Y. 126:137
Ion channel expression
–, lipopolysaccharide induction of outward potassium current expression in human monocyte-derived macrophages: lack of correlation with secretion, Nelson, D.J., Jow, B., Jow, F. 125:207
–, tissue-specific expression of the voltage-sensitive sodium channel, Mandel, G. 125:193
Ion channels
–, calcium release and internal calcium regulation in acinar cells of exocrine glands, Marty, A. 124:189
–, chloride channels in the nuclear membrane, Tabares, L., Mazzanti, M., Clapham, D.E. 123:49
–, dimensions of the ion channel in neuronal nicotinic acetylcholine receptor as estimated from analysis of conformation-activity relationships of open-channel blocking drugs, Zhorov, B.S., Brovtsyna, N.B., Gmiro, V.E., Lukomskaya, N.Y., Serdyuk, S.E., Potapyeva, N.N., Magazanik, L.G., Kurenniy, D.E., Skok, V.I. 121:119
–, ion channel gating in plants: physiological implications and integration for stomatal function, Blatt, M.R. 124:95
–, ion channels in murine nuclei during early development and in fully differentiated adult cells, Mazzanti, M., DeFilice, L.J., Smith, E.F. 121:189
–, ion channels in the plasma membrane of *Amaranthus* protoplasts: one cation and one anion channel dominate the conductance, Terry, B.R., Tyerman, S.D., Findlay, G.P. 121:223
–, ion flow through membranes and the resting potential of cells, Offner, F.F. 123:171
–, model ion channels: gramicidin and alamethicin, Woolley, G.A., Wallace, B.A. 129:109
–, patch clamping VDAC in liposomes containing whole mitochondrial membranes, Wunder, U.R., Colombini, M. 123:83
–, single-membrane and cell-to-cell permeability properties of dissociated embryonic chick lens cells, Miller, A.G., Zampighi, G.A., Hall, J.E. 128:91
–, solubilization and function al reconstitution of a chloride channel from *Torpedo californica* electroplax, Goldberg, A.F.X., Miller, C. 124:199
–, tumor necrosis factor inhibits K^+ current expression in cultured oligodendrocytes, Soliven, B., Szuchet, S., Nelson, D.J. 124:127
Ion currents
–, permeance of Cs^+ and Rb^+ through the inwardly rectifying K^+ channels in guinea pig ventricular myocytes, Mitra, R.L., Morad, M. 122:33
Ion flux
–, ion fluxes in *Acetabularia*: Vesicular shuttle, Mummert, H., Gradmann, D. 124:255
Ion pumps
–, charge translocation by the Na,K pump: II. ion binding and release at the extracellular face, Stürmer, W., Bühler, R., Apell, H.J., Läuger, P. 121:163
–, charge translocation by the Na,K-pump: I. kinetics of local field changes studied by time-resolved fluorescence measurements, Bühler, R., Stürmer, W., Apell, J.J., Läuger, P. 121:141
Ion selective microelectrodes
–, intracellular potassium activity in mammalian proximal tubule: effect of perturbations in transepithelial sodium transport, Laprade, R., Lapointe, J.Y., Breton, S., Duplain, M., Cardinal, J. 121:249
Ion selectivity
–, ion selectivity of colicin E1: modulation by pH and membrane composition, Bullock, J.O. 125:255
–, ion selectivity of colicin E1: II. permeability to organic cations, Bullock, J.O., Kolen, E.R., Shear, J.L. 128:1
–, ionic effects on bumetaide binding to the activated Na/K/Cl cotransporter: selectivity and kinetics properties of ion binding sites, Hegde, R., Palfrey, H.C. 126:27
Ion-solute transport
–, dissecting the molecular mechanism of ion-solute cotransport: substrate specificity mutations in the *putP* gene affect the kinetics of proline transport, Myers, R.S., Townsend, D., Maloy, S. 121:201
Ion transport
–, identification of anion and cation pathways in the inner mitochondrial membrane by patch clamping of mouse liver mitoplasts, Antonenko, Y.N., Kinnally, K.W., Tedeschi, H. 124:151
–, HCO_3^--coupled Na^+ influx is a major determinant of Na^+

turnover and Na^+/K^+ pump activity in rat hepatocytes, Fitz, J.G., Lidofsky, S.D., Weisiger, R.A., Xie, M.-H., Cochran, M., Grotmol, T., Scharschmidt, B.F. 122:1
–, inability of Ehrlich ascites tumor cells to volume regulate following a hyperosmotic challenge, Levinson, C. 121: 279
–, lithium-selective permeation through lipid bilayer membranes mediated by a di-imide ionophore with nonsymmetrical imide substituents (ETH1810), Zeevi, A., Margalit, R. 121:133
–, localization of sodium absorption and chloride secretion in an intestinal epithelium, Holtug, K., Shipley, A., Datzer, V., Sten-Knudsen, O., Skadhauge, E. 122:215
Ionic concentration
–, ion flow through membranes and the resting potential of cells, Offner, F.F. 123:171
Ionic selectivity
–, lithium-selective permeation through lipid bilayer membranes mediated by a di-imide ionophore with nonsymmetrical imide substituents (ETH1810), Zeevi, A., Margalit, R. 121:133
Ionomycin
–, rapid Ca^{2+} extrusion via the Na^+/Ca^{2+} exchanger of the human platelet, Valant, P.A., Adjei, P.N., Haynes, D.H. 130:63
Isoflurane
–, effects of the anesthetics heptanol, halothane and isoflurane on gap junction conductance in crayfish septate axons: a calcium- and hydrogen-independent phenomenon potentiated by caffeine and theophylline, and inhibited by 4-aminopyridine, Peracchia, C. 121:67
J774 cells
–, G-protein activators induce a potassium conductance in murine macrophages, McKinney, L.C., Gallin, E.K. 130:265
Jejunal villus enterocytes
–, differences in Ca^{2+}-mediation of hypotonic and Na^+-nutrient regulatory volume decrease in suspensions of jejunal enterocytes, MacLeod, R.J., Lembessis, P., Hamilton, J.R. 130:23
Junction potential
–, liquid junction potentials and small cell effects in patch-clamp analysis, Barry, P.H., Lynch, J.W. 121:101
Junctional communication
–, incorporation of the gene for a cell-cell channel protein into transformed cells leads to normalization of growth, Mehta, P.P., Hotz-Wagenblatt, A., Rose, B., Shalloway, D., Loewenstein, W.R. 124:207
Junctional foot protein
–, mapping of the calpain proteolysis products of the junctional foot protein of the skeletal muscle triad junction, Brandt, N.R., Caswell, A.H., Brandt, T., Brew, K., Mellgren, R.L. 127:35
K-ATP channel
–, analysis and use of the perforated patch technique for recording ionic currents in pancreatic β-cells, Sala, S., Parsey, R.V., Cohen, A.S., Matteson, D.R. 122:177
–, slow voltage inactivation of Ca^{2+} currents and bursting mechanisms for the mouse pancreatic beta-cell, Smolen, P., Keizer, J. 127:9
K/Cl cotransport
–, kinetics of DIDS inhibition of swelling-activated K-Cl cotransport in low K sheep erythrocytes, Delpire, E., Lauf, P.K. 126:89
K/H exchange
–, K-induced alkalinization in all cell types of rabbit gastric glands: a novel K/H exchange mechanism, Hofer, A.M., Machen, T.E. 126:245
Kidney
–, calcium-dependent control of volume regulation in renal proximal tubule cells: I. swelling-activated Ca^{2+} entry and release, McCarty, N.A., O'Neil, R.G. 123:149
–, calcium-dependent control of volume regulation in renal proximal tubule cells: II. role of dihydropyridine-sensitive and -insensitive Ca^{2+} entry pathways, McCarty, N.A., O'Neil, R.G. 123:161
–, sodium-calcium exchange in renal epithelial cells: dependence on cell sodium and competitive inhibition by magnesium, Lyu, R.M., Smith, L., Smith, J.B. 124:73
Kinetics
–, dissecting the molecular mechanism of ion-solute cotransport: substrate specificity mutations in the *putP* gene affect the kinetics of proline transport, Myers, R.S., Townsend, D., Maloy, S. 121:201
–, effect of cholesterol and dipalmitoyl phosphatidylcholine enrichment on the kinetics of Na-Li exchange of human erythrocytes, Engelmann, B., Duhm, J. 122:231
–, effects of osmotic stress on mast cell vesicles of the beige mouse, Brodwick, M.S., Curran, M., Edwards, C. 126: 159
–, inhibition of inward rectifying tonoplast channels by a vacuolar factor: physiological and kinetic implications, Maathuis, F.J.M., Prins, B.A. 122:251
–, ion channel enzyme in an oscillating field, Markin, V.S., Liu, D., Gimsa, J., Strobel, R., Rosenberg, M.D., Tsong, T.Y. 126:137
–, membrane transport models with fast and slow reactions: general analytical solution for a single relaxation, Roy, G., Wierzbicki, W., Sauvé, R. 123:105
–, rapid Ca^{2+} extrusion via the Na^+/Ca^{2+} exchanger of the human platelet, Valant, P.A., Adjei, P.N., Haynes, D.H. 130:63
Lanthanum ion blockade
–, activation of K^+ channels by lanthanum contributes to the block of transmitter release in chick and rat sympathetic neurons, Przywara, D.A., Bhave, S.V., Bhave, A., Chowdhury, P.S., Wakade, T.D., Wakade, A.R. 125: 155
Lazy state
–, patch-clamp studies on the anomalous mole fraction effect of the K^+ channel in cytoplasmic droplets of *Nitella*: an attempt to distinguish between a multi-ion single-file pore and an enzyme kinetic model with lazy state, Draber, S., Schultze, R., Hansen, U.P. 123:183
Leak current
–, membrane transport in stomatal guard cells: the importance of voltage control, Thiel, G., MacRobbie, E.A.C., Blatt, M.R. 126:1
Lean mice
–, comparison of the properties of the ATP-sensitive K^+ channels of pancreatic β-cells of lean and obese (ob/ob) CC57BL/6J mice, Fournier, L., Bégin-Heick, N., Whitfield, J.F., Schwartz, J.L. 129:267
Lens channels
–, reconstitution of channels from preparation enriched in lens gap junction protein MP70, Donaldson, P., Kistler, J. 129:155
Lens epithelium
–, pH regulation in tissue-cultured bovine lens epithelial cells, Williams, M.R., Duncan, G., Croghan, P.C., Riach, R., Webb, S.F. 129:179

Lens fibers
–, phosphorylation modulates the voltage-dependence of channels reconstituted from the major intrinsic protein of lens fiber membranes, Ehring, G.R., Lagos, N., Zampighi, G.A., Hall, J.E. 126:75
–, the permeability of reconstituted liposomes containing the purified lens fiber cell integral membrane proteins MP20, MP26, and MP70, Jarvis, L.J., Louis, C.F. 130:251
Leukemia cells
–, effects of inhibitors of ion-motive ATPases on the plasma membrane potential of murine erythroleukemia cells, Arcangeli, A., Del Bene, M.R., Becchetti, A., Wanke, E., Olivotto, M. 126:123
Lidocaine
–, differential response of DPI-modified cardiac Na^+ channels to antiarrhythmic drugs: no flicker blockade by lidocaine, Benz, I., Kohlhardt, M. 126:257
–, the cloned cardiac Na channel α-subunit expressed in *Xenopus* oocytes show gating and blocking properties of native channels, Satin, J., Kyle, J.W., Chen, M., Rogart, R.B., Fozzard, H.A. 130:11
Light-dependent channels
–, spontaneous activity of the light-dependent channel irreversibly induced in excised patches from *Limulus* ventral photoreceptors, Johnson, E.C., Bacigalupo, J. 130:33
Limulus photoreceptors
–, spontaneous activity of the light-dependent channel irreversibly induced in excised patches from *Limulus* ventral photoreceptors, Johnson, E.C., Bacigalupo, J. 130:33
Linear dichroism
–, on coenzyme Q orientation in membranes: a linear dichroism study of ubiquinones in a model bilayer, Samorì, B., Lenaz, G., Battino, M., Marconi, G., Domini, I. 128:193
Lipid enveloped viruses
–, membrane destabilization by N-terminal peptides of viral envelope proteins, Düzgüneş, N., Shavnin, S.A. 128:71
Lipid-protein interactions
–, ion selectivity of colicin E1: modulation by pH and membrane composition, Bullock, J.O. 125:255
Lipid transfer proteins
–, phospholipid dependence of rat liver microsomal acyl : CoA synthetase and acyl-CoA : 1-acyl-*sn*-glycero-3-phosphocholine O-acyltransferase, Koshlukova, S.E., Momchilova-Pankova, A.B., Markovska, T.T., Koumanov, K.S. 127:113
Lipid vesicles
–, a naphthyl analog of the aminostyryl pyridinium class of potentiometric membrane dyes shows consistent sensitivity in a variety of tissue, cell, and model membrane preparations, Loew, L.M., Cohen, L.B., Dix, J., Fluhler, E.N., Montana, V., Salama, G., Jian-young, W. 130:1
Lipopolysaccharides
–, lipopolysaccharide induction of outward potassium current expression in human monocyte-derived macrophages: lack of correlation with secretion, Nelson, D.J., Jow, B., Jow, F. 125:207
Liposomes
–, interaction of eosinophil granule major basic protein with synthetic lipid bilayers: a mechanism for toxicity, Abu-Ghazaleh, R.I., Gleich, G.J., Prendergast, F.G. 128:153
–, patch clamping VDAC in liposomes containing whole mitochondrial membranes, Wunder, U.R., Colombini, M. 123:83
–, reconstitution of sodium channels in large liposomes formed by the addition of acidic phospholipids and freeze-thaw sonication, Migual, V., Balbi, D., Castillo, C., Villegas, R. 129:37
–, solubilization and function al reconstitution of a chloride channel from *Torpedo californica* electroplax, Goldberg, A.F.X., Miller, C. 124:199
–, the permeability of reconstituted liposomes containing the purified lens fiber cell integral membrane proteins MP20, MP26, and MP70, Jarvis, L.J., Louis, C.F. 130:251
Lithium ion transport
–, lithium-selective permeation through lipid bilayer membranes mediated by a di-imide ionophore with nonsymmetrical imide substituents (ETH1810), Zeevi, A., Margalit, R. 121:133
Locust excretory system
–, electrogenic proton secretion in the hindgut of the desert locust, *Schistocerca gregaria*, Thomson, R.B., Phillips, J.E. 125:133
Loop diuretics
–, ionic effects on bumetaide binding to the activated Na/K/Cl cotransporter: selectivity and kinetics properties of ion binding sites, Hegde, R., Palfrey, H.C. 126:27
Lymphocytes
–, characterization of K^+ currents in rat malignant lymphocytes (Nb2 cells), Cukierman, S. 126:147
–, outwardly rectifying chloride channels in lymphocytes, Garber, S.S. 127:49
Lys residues
–, role of Lys 558 and Lys 869 in substrate and inhibitor binding to the murine band 3 protein: a study of the effects of site-directed mutagenesis of the band 3 protein expressed in the ooçytes of *Xenopus laevis*, Wood, P.G., Müller, H., Sovak, M., Passow, H. 127:139
Lysines
–, measurement of exofacially reactive lysines in human erythrocyte band 3 using pyridoxal 5′-phosphate, Salhany, J.M. 121:91
Macrophages
–, G-protein activators induce a potassium conductance in murine macrophages, McKinney, L.C., Gallin, E.K. 130:265
–, lipopolysaccharide induction of outward potassium current expression in human monocyte-derived macrophages: lack of correlation with secretion, Nelson, D.J., Jow, B., Jow, F. 125:207
Magnesium
–, sodium-calcium exchange in renal epithelial cells: dependence on cell sodium and competitive inhibition by magnesium, Lyu, R.M., Smith, L., Smith, J.B. 124:73
Magnesium ions
–, a transient outward current dependent on external calcium in rat cerebellar granule cells, Carignani, C., Robello, M., Marchetti, C., Maga, L. 122:259
Major intrinsic protein
–, phosphorylation modulates the voltage-dependence of channels reconstituted from the major intrinsic protein of lens fiber membranes, Ehring, G.R., Lagos, N., Zampighi, G.A., Hall, J.E. 126:75
Malate transport
–, identification of an essential histidine residue at the active site of the tonoplast malate carrier in *Catharanthus roseus* cells, Dietz, K.J., Canut, H., Marigo, G. 129:137
Malignant cells
–, characterization of K^+ currents in rat malignant lymphocytes (Nb2 cells), Cukierman, S. 126:147
Maltose
–, conformational changes in human red cell membrane proteins induced by sugar binding, Janoshazi, A., Kifor, G., Solomon, A.K. 123:191

Manganese ions
–, a transient outward current dependent on external calcium in rat cerebellar granule cells, Carignani, C., Robello, M., Marchetti, C., Maga, L. 122:259
MCT cells
–, apical and basolateral Na/H exchange in cultured murine proximal tubule cells (MCT): effect of parathyroid hormone (PTH), Mrkic, B., Forgo, J., Murer, H., Helmle-Kolb, C. 130:205
MDCK cells
–, activation of amino acid diffusion by a volume increase in cultured kidney (MDCK) cells, Roy, G., Malo, C. 130:83
–, activation of K^+ and CL^- channels in MDCK cells during volume regulation in hypotonic media, Banderali, U., Roy, G. 126:219
–, evidence that plasma membrane electrical potential is required for vesicular stomatitis virus infection of MDCK cells: a study using fluorescence measurements through polycarbonate supports, Akeson, M., Scharff, J., Sharp, C.M., Neville, D.M., Jr. 125:81
–, ion channels activated by swelling of Madin Darby canine kidney (MDCK) cells, Weiss, H., Lang, F. 126:109
–, osmolarity-sensitive release of free amino acids from cultured kidney cells (MDCK), Olea, R.S., Pasantes-Morales, H., Lázaro, Cereijido, M. 121:1
Medullary chromaffin cells
–, pertussis toxin stimulation of catecholamine release from adrenal medullary chromaffin cells: mechanism may be by direct activation of L-type and G-type calcium channels, Ceña, V., Brocklehurst, K.W., Pollard, H.B., Rojas, E. 122:23
Membrane binding
–, transport and membrane binding of the glutamine analogue 6-diazo-5-oxo-L-norleucine (DON) in *Xenopus laevis* oocytes, Taylor, P.M., Mackenzie, B., Hundal, H.S., Robertson, E., Rennie, M.J. 128:181
Membrane conductance
–, effect of high pH on the plasma membrane potential and conductance in *Elodea densa*, Miedema, H., Felle, H., Prins, H.B.A 128:63
Membrane destabilization
–, membrane destabilization by N-terminal peptides of viral envelope proteins, Düzgüneş, N., Shavnin, S.A. 128:71
Membrane function
–, the structure and function of membranes—a personal memoir, Singer, S J. 129:3
Membrane fusion
–, membrane destabilization by N-terminal peptides of viral envelope proteins, Düzgüneş, N., Shavnin, S.A. 128:71
Membrane potential
–, a naphthyl analog of the aminostyryl pyridinium class of potentiometric membrane dyes shows consistent sensitivity in a variety of tissue, cell, and model membrane preparations, Loew, L.M., Cohen, L.B., Dix, J., Fluhler, E.N., Montana, V., Salama, G., Jian-young, W. 130:1
–, effect of high pH on the plasma membrane potential and conductance in *Elodea densa*, Miedema, H., Felle, H., Prins, H.B.A 128:63
–, effects of inhibitors of ion-motive ATPases on the plasma membrane potential of murine erythroleukemia cells, Arcangeli, A., Del Bene, M.R., Becchetti, A., Wanke, E., Olivotto, M. 126:123
–, evidence that plasma membrane electrical potential is required for vesicular stomatitis virus infection of MDCK cells: a study using fluorescence measurements through polycarbonate supports, Akeson, M., Scharff, J., Sharp, C.M., Neville, D.M., Jr. 125:81
–, HCO_3^--coupled Na^+ influx is a major determinant of Na^+ turnover and Na^+/K^+ pump activity in rat hepatocytes, Fitz, J.G., Lidofsky, S.D., Weisiger, R.A., Xie, M.-H., Cochran, M., Grotmol, T., Scharschmidt, B.F. 122:1
–, membrane potential modulates divalent cation entry in rat parotid acini, Mertz, L.M., Baum, B.J., Ambudkar, I.S. 126:183
–, quantitative analysis of depolarization-induced ATP release from mouse brain synaptosomes: external calcium dependent and independent processes, Fiedler, J.L., Pollard, H.B., Rojas, E. 127:21
–, regulation of endogenous and expressed Na^+/K^+ pumps in *Xenopus* oocytes by membrane potential and stimulation of protein kinases, Vasilets, L.A., Schwarz, W. 125: 119
–, response of chloride efflux from skeletal muscle of *Rana pipiens* to changes of temperature and membrane potential and diethylpyrocarbonate treatment, Spalding, B.C., Taber, P., Swift, J.G., Horowicz, P. 123:223
–, response of the electrochromic dye, merocyanine 540, to membrane potential in rat liver mitochondria, Kalenak, A., McKenzie, R.J., Conover, T.E. 123:23
–, tumor necrosis factor inhibits K^+ current expression in cultured oligodendrocytes, Soliven, B., Szuchet, S., Nelson, D.J. 124:127
Membrane proteins
–, reconstitution of channels from preparation enriched in lens gap junction protein MP70, Donaldson, P., Kistler, J. 129:155
–, the permeability of reconstituted liposomes containing the purified lens fiber cell integral membrane proteins MP20, MP26, and MP70, Jarvis, L.J., Louis, C.F. 130:251
Membrane structure
–, the structure and function of membranes—a personal memoir, Singer, S J. 129:3
Membrane transport
–, membrane transport in stomatal guard cells: the importance of voltage control, Thiel, G., MacRobbie, E.A.C., Blatt, M.R. 126:1
–, membrane transport models with fast and slow reactions: general analytical solution for a single relaxation, Roy, G., Wierzbicki, W., Sauvé, R. 123:105
–, membrane transport properties of L-2,4-diaminobutyrate revisited, Christensen, H.N., Ronquist, G. 127:1
Membrane voltage
–, membrane transport in stomatal guard cells: the importance of voltage control, Thiel, G., MacRobbie, E.A.C., Blatt, M.R. 126:1
Merocyanine
–, response of the electrochromic dye, merocyanine 540, to membrane potential in rat liver mitochondria, Kalenak, A., McKenzie, R.J., Conover, T.E. 123:23
Messenger production
–, apical and basolateral effects of PTH in OK cells: transport inhibition, messenger production, effects of pertussis toxin, and interaction with a PTH analog, Reshkin, S.J., Forgo, J., Murer, H. 124:227
Methacholine
–, ionic basis of methacholine-induced shrinkage of dissociated eccrine clear cells, Suzuki, Y., Ohtsuyama, M., Samman, G., Sato, F., Sato, K. 123:33
Methylisobutyl amiloride
–, inhibition of Ca-activated K^+ channels from renal microvil-

lus membrane vesicles by amiloride analogs, Zweifach, A., Desir, G.V., Aronson, P.S., Giebisch, G. 128:115
MgATP-dependent H^+ pump
–, association of a 19- and a 21-kDa GTP-binding protein to pancreatic microsomal vesicles is regulated by the intravesicular pH established by a vacuolar-type H^+-ATPase, Zeuzem, S., Zimmermann, P., Schulz, I. 125:231
Microbody targeting signals
–, targeting of proteins into the peroxisomal matrix, Subramani, S. 125:99
Microelectrodes
–, HCO_3^--coupled Na^+ influx is a major determinant of Na^+ turnover and Na^+/K^+ pump activity in rat hepatocytes, Fitz, J.G., Lidofsky, S.D., Weisiger, R.A., Xie, M.-H., Cochran, M., Grotmol, T., Scharschmidt, B.F. 122:1
Microscope video system
–, ionic basis of methacholine-induced shrinkage of dissociated eccrine clear cells, Suzuki, Y., Ohtsuyama, M., Samman, G., Sato, F., Sato, K. 123:33
Microsomes
–, phospholipid dependence of rat liver microsomal acyl : CoA synthetase and acyl-CoA : 1-acyl-*sn*-glycero-3-phosphocholine O-acyltransferase, Koshlukova, S.E., Momchilova-Pankova, A.B., Markovska, T.T., Koumanov, K.S. 127:113
Microvillus membrane vesicles
–, inhibition of Ca-activated K^+ channels from renal microvillus membrane vesicles by amiloride analogs, Zweifach, A., Desir, G.V., Aronson, P.S., Giebisch, G. 128:115
MIP26 channels
–, channel reconstitution in liposomes and planar bilayers with HPLC-purified MIP26 of bovine lens, Shen, L., Shrager, P., Girsch, S.J., Donaldson, P.J., Peracchia, C. 124:21
Mitochondria
–, identification of anion and cation pathways in the inner mitochondrial membrane by patch clamping of mouse liver mitoplasts, Antonenko, Y.N., Kinnally, K.W., Tedeschi, H. 124:151
–, inner mitochondrial membrane anion channel is present in brown adipocytes but is not identical with the uncoupling protein, Klitsch, T., Siemen, D. 122:69
–, patch clamping VDAC in liposomes containing whole mitochondrial membranes, Wunder, U.R., Colombini, M. 123:83
–, response of the electrochromic dye, merocyanine 540, to membrane potential in rat liver mitochondria, Kalenak, A., McKenzie, R.J., Conover, T.E. 123:23
Mitochondria-rich cells
–, intracellular ion concentrations in the isolated frog skin epithelium: evidence for different types of mitochondria-rich cells, Rick, R. 127:227
Mitoplasts
–, inner mitochondrial membrane anion channel is present in brown adipocytes but is not identical with the uncoupling protein, Klitsch, T., Siemen, D. 122:69
Mn^{2+} entry
–, elevation of cytostolic $[Ca^{2+}]$ due to intracellular Ca^{2+} release retards carbachol stimulation of divalent cation entry in rat parotid gland acinar cells, Hiramatsu, Y., Baum, B.J., Ambudkar, I.S. 129:277
Model bilayer
–, on coenzyme Q orientation in membranes: a linear dichroism study of ubiquinones in a model bilayer, Samorì, B., Lenaz, G., Battino, M., Marconi, G., Domini, I. 128:193
Model membrane
–, on coenzyme Q orientation in membranes: a linear dichroism study of ubiquinones in a model bilayer, Samorì, B., Lenaz, G., Battino, M., Marconi, G., Domini, I. 128:193
Molecular cloning
–, molecular cloning and expression of rat connexin40, a gap junction protein expressed in vascular smooth muscle, Beyer, E.C., Reed, K.E., Westphale, E.M., Kanter, H.L., Larson, D.M. 127:69
Monoclonal antibodies
–, calcium influx and intracellular calcium release in anti-CD3 antibody-stimulated and thapsigargin-treated human T lymphoblasts, Sarkadi, B., Tordai, A., Homolya, L., Scharff, O., Gárdos, G. 123:9
–, localization of epitopes for antibodies that differentially label sodium channels in skeletal muscle surface and T-tubular membranes, Cohen S.A., Barchi, R.L. 128:219
–, monoclonal antibodies raised against post-translational domains of the electroplax sodium channel, Ivey, S., Thornhill, W.B., Levinson, S.R. 121:215
Mouse brain
–, quantitative analysis of depolarization-induced ATP release from mouse brain synaptosomes: external calcium dependent and independent processes, Fiedler, J.L., Pollard, H.B., Rojas, E. 127:21
Mouse liver
–, identification of anion and cation pathways in the inner mitochondrial membrane by patch clamping of mouse liver mitoplasts, Antonenko, Y.N., Kinnally, K.W., Tedeschi, H. 124:151
Mouse medullary thick ascending limb (mTALH)
–, Cl^- channels in basolateral renal medullary vesicles: V. comparison of basolateral mTALH Cl^- channels with apical Cl^- channels from jejunum and trachea, Winters, C.J., Reeves, W.B., Andreoli, T.E. 128:27
Mouse neuroblastoma cells
–, mechanism of asymmetric block of K channels by tetraalkylammonium ions in mouse neuroblastoma cells, Im, M.B., Quandt, F.N. 130:115
Mouse pancreas
–, slow voltage inactivation of Ca^{2+} currents and bursting mechanisms for the mouse pancreatic beta-cell, Smolen, P., Keizer, J. 127:9
Multi-ion single-file pore
–, patch-clamp studies on the anomalous mole fraction effect of the K^+ channel in cytoplasmic droplets of *Nitella*: an attempt to distinguish between a multi-ion single-file pore and an enzyme kinetic model with lazy state, Draber, S., Schultze, R., Hansen, U.P. 123:183
Muscarinic cholinergic receptor
–, elevation of cytostolic $[Ca^{2+}]$ due to intracellular Ca^{2+} release retards carbachol stimulation of divalent cation entry in rat parotid gland acinar cells, Hiramatsu, Y., Baum, B.J., Ambudkar, I.S. 129:277
Muscarinic receptor subtype
–, Muscarinic responses of gastric parietal cells, Wilkes, J.M., Kajimura, M., Scott, D.R., Hersey, S.J., Sachs, G. 122:97
Muscarinic stimulation
–, biphasic increase of apical Cl^- conductance by muscarinic stimulation of HT-29cl.19A human colon carcinoma cell line: evidence for activation of different Cl^- conductances by carbachol and forskolin, Bajnath, R.B., Dekker, K., Vaandrager, A.B., de Jonge, H.R., Groot, J.A. 127:81
–, regulation of cytoplasmic pH in rat sublingual mucous acini at rest and during muscarinic stimulation, Zhang, G.H., Cragoe, E.J., Jr., Melvin, J.E. 129:311

Mutagenesis
–, role of Lys 558 and Lys 869 in substrate and inhibitor binding to the murine band 3 protein: a study of the effects of site-directed mutagenesis of the band 3 protein expressed in the oocytes of *Xenopus laevis*, Wood, P.G., Müller, H., Sovak, M., Passow, H. 127:139
Myelin
–, tumor necrosis factor inhibits K^+ current expression in cultured oligodendrocytes, Soliven, B., Szuchet, S., Nelson, D.J. 124:127
Myelinated nerve fiber
–, a TEA-insensitive flickering potassium channel active around the resting potential in myelinated nerve, Koh, D.S., Jonas, P., Bräu, M.E., Vogel, W. 130:149
Myotome membrane vesicles
–, excitation-contraction coupling in a pre-vertebrate twitch muscle: the myotomes of *Branchiostoma lanceolatum*, Benterbusch, R., Herberg, F.W., Melzer, W., Thieleczek, R. 129:237
Na/H exchange
–, apical and basolateral Na/H exchange in cultured murine proximal tubule cells (MCT): effect of parathyroid hormone (PTH), Mrkic, B., Forgo, J., Murer, H., Helmle-Kolb, C. 130:205
–, regulation of principal cell pH by Na/H exchange in rabbit cortical collecting tubule, Silver, R.B., Frindt, G., Palmer, L.G. 125:13
Na/K-ATPase
–, charge translocation by the Na,K pump: II. ion binding and release at the extracellular face, Strümer, W., Bühler, R., Apell, H.J., Läuger, P. 121:163
–, charge translocation by the Na,K-pump: I. kinetics of local field changes studied by time-resolved fluorescence measurements, Bühler, R., Stürmer, W., Apell, J.J., Läuger, P. 121:141
–, serum independence of low K^+ induction of Na,K-ATPase: possible role of *c-fos*, Cayanis, E., Russo, J.J., Wu, Y., Edlman, I.S. 125:163
Na/K pump
–, charge translocation by the Na,K pump: II. ion binding and release at the extracellular face, Stürmer, W., Bühler, R., Apell, H.J., Läuger, P. 121:163
–, charge translocation by the Na,K-pump: I. kinetics of local field changes studied by time-resolved fluorescence measurements, Bühler, R., Stürmer, W., Apell, J.J., Läuger, P. 121:141
–, serum independence of low K^+ induction of Na,K-ATPase: possible role of *c-fos*, Cayanis, E., Russo, J.J., Wu, Y., Edlman, I.S. 125:163
–, voltage dependence of current through the Na,K-exchange pump of *Rana* oocytes, Wu, M.M., Civan, M.M. 121:23
Na/K/2Cl cotransport
–, ionic effects on bumetaide binding to the activated Na/K/Cl cotransporter: selectivity and kinetics properties of ion binding sites, Hegde, R., Palfrey, H.C. 126:27
–, regulatory volume increase in Ehrlich ascites tumor cells is mediated by the 1Na : 1K : 2Cl cotransport system, Levinson, C. 126:277
Na/Li exchange
–, effect of cholesterol and dipalmitoyl phosphatidylcholine enrichment on the kinetics of Na-Li exchange of human erythrocytes, Engelmann, B., Duhm, J. 122:231
Na/P_i cotransport
–, apical and basolateral Na/H exchange in cultured murine proximal tubule cells (MCT): effect of parathyroid hormone (PTH), Mrkic, B., Forgo, J., Murer, H., Helmle-Kolb, C. 130:205
Na^+/Ca^{2+} exchange
–, actions of cadmium on basolateral plasma membrane proteins involved in calcium uptake by fish intestine, Schoenmakers, T.J.M., Klaren, P.H.M., Flik, G., Lock, R.A.C., Pang, P.K.T., Bonga, S.E.W. 127:161
–, rapid Ca^{2+} extrusion via the Na^+/Ca^{2+} exchanger of the human platelet, Valant, P.A., Adjei, P.N., Haynes, D.H. 130:63
–, sodium-calcium exchange in renal epithelial cells: dependence on cell sodium and competitive inhibition by magnesium, Lyu, R.M., Smith, L., Smith, J.B. 124:73
Na^+/Cl^- symport
–, nature of the neutral Na^+-Cl^- coupled entry at the apical membrane of rabbit gallbladder epithelium: IV. Na^+/H^+, Cl^-/HCO_3^- double exchange, hydrochlorothiazide-sensitive Na^+-Cl^- symport and Na^+-K^+-$2Cl^-$ cotransport are all involved, Cremaschi, D., Porta, C., Bottà, G., Meyer, G. 129:221
Na^+-dependent transport
–, Na^+ dependent HCO_3^- transport and Na^+/H^+ exchange regulate pH_i in human ciliary muscle cells, Stahl, F., Lepple-Wienhues, A., Koch, M., Wiederholt, M. 127:215
–, transport and membrane binding of the glutamine analogue 6-diazo-5-oxo-L-norleucine (DON) in *Xenopus laevis* oocytes, Taylor, P.M., Mackenzie, B., Hundal, H.S., Robertson, E., Rennie, M.J. 128:181
Na^+/glucose cotransport
–, analysis of kinetic data in transport studies: new insights from kinetic studies of Na^+-D-glucose cotransport in human intestinal brush-border membrane vesicles using a fast sampling, rapid filtration apparatus, Malo, C., Berteloot, A. 122:127
–, electrogenic properties of the cloned Na^+/glucose cotransporter: I. voltage-clamp studies, Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M. 125:49
–, electrogenic properties of the cloned Na^+/glucose cotransporter: II. a transport model under nonrapid equilibrium conditions, Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M. 125:63
–, fast sampling, rapid filtration apparatus: principal characteristics and validation from studies of D-glucose transport in human jejunal brush-border membrane vesicles, Berteloot, A., Malo, C., Breton, S., Brunette, M. 122:111
Na^+/H^+ antiport
–, amiloride sensitivity of proton-conductive pathways in gastric and intestinal apical membrane vesicles, Wilkes, J.M., Hirst, B.H. 126:115
Na^+/H^+ exchange
–, angiotensin II directly increases rabbit renal brush-border membrane sodium transport: presence of local signal transduction system, Morduchowicz, G.A., Sheikh-Hamad, D., Dwyer, B.E., Stern, N., Jo, O.D., Yanagawa, N. 122:43
–, H^+ extrusion by an apical vacuolar-type H^+-ATPase in rat renal proximal tubules, Zimolo, Z., Montrose, M.H., Murer, H. 126:19
–, Na^+ dependent HCO_3^- transport and Na^+/H^+ exchange regulate pH_i in human ciliary muscle cells, Stahl, F., Lepple-Wienhues, A., Koch, M., Wiederholt, M. 127:215
–, Na^+/H^+-exchange in A6 cells: polarity and vasopressin regulation, Casavola, V., Guerra, L., Helmle-Kolb, C., Reshkin, S.J., Murer, H. 130:105
–, nature of the neutral Na^+-Cl^- coupled entry at the apical membrane of rabbit gallbladder epithelium: IV. Na^+/H^+,

Cl^-/HCO_3^- double exchange, hydrochlorothiazide-sensitive Na^+-Cl^- symport and Na^+-K^+-$2Cl^-$ cotransport are all involved, Cremaschi, D., Porta, C., Bottà, G., Meyer, G. 129:221
–, regulation of cytoplasmic pH in rat sublingual mucous acini at rest and during muscarinic stimulation, Zhang, G.H., Cragoe, E.J., Jr., Melvin, J.E. 129:311
–, volume-dependent regulation of sodium and potassium fluxes in cultured vascular smooth muscle cells: dependence on medium osmolality and regulation by signalling systems, Orlov, S.N., Resink, T.J., Bernhardt, J., Buhler, F.R. 129:199
Na^+/HCO_3^- cotransport
–, HCO_3^--coupled Na^+ influx is a major determinant of Na^+ turnover and Na^+/K^+ pump activity in rat hepatocytes, Fitz, J.G., Lidofsky, S.D., Weisiger, R.A., Xie, M.-H., Cochran, M., Grotmol, T., Scharschmidt, B.F. 122:1
–, Na^+ dependent HCO_3^- transport and Na^+/H^+ exchange regulate pH_i in human ciliary muscle cells, Stahl, F., Lepple-Wienhues, A., Koch, M., Wiederholt, M. 127:215
Na^+/K^+-ATPase
–, a negative slope in the current-voltage relationship of the Na^+/K^+ pump in *Xenopus* oocytes produced by reduction in external [K^+], Rakowski, R.F., Vasilets, L.A., LaTona, J., Schwarz, W. 121:177
–, actions of cadmium on basolateral plasma membrane proteins involved in calcium uptake by fish intestine, Schoenmakers, T.J.M., Klaren, P.H.M., Flik, G., Lock, R.A.C., Pang, P.K.T., Bonga, S.E.W. 127:161
–, regulation of endogenous and expressed Na^+/K^+ pumps in *Xenopus* oocytes by membrane potential and stimulation of protein kinases, Vasilets, L.A., Schwarz, W. 125:119
–, substrate-induced modulation of ATP turnover in dog and rabbit proximal tubules, Noël, J., Tejedor, A., Vinay, P., Laprade, R. 128:205
Na^+/K^+ pump
–, a negative slope in the current-voltage relationship of the Na^+/K^+ pump in *Xenopus* oocytes produced by reduction in external [K^+], Rakowski, R.F., Vasilets, L.A., LaTona, J., Schwarz, W. 121:177
–, HCO_3^--coupled Na^+ influx is a major determinant of Na^+ turnover and Na^+/K^+ pump activity in rat hepatocytes, Fitz, J.G., Lidofsky, S.D., Weisiger, R.A., Xie, M.-H., Cochran, M., Grotmol, T., Scharschmidt, B.F. 122:1
–, regulation of endogenous and expressed Na^+/K^+ pumps in *Xenopus* oocytes by membrane potential and stimulation of protein kinases, Vasilets, L.A., Schwarz, W. 125:119
$Na^+/K^+/2Cl^-$ cotransport
–, nature of the neutral Na^+-Cl^- coupled entry at the apical membrane of rabbit gallbladder epithelium: IV. Na^+/H^+, Cl^-/HCO_3^- double exchange, hydrochlorothiazide-sensitive Na^+-Cl^- symport and Na^+-K^+-$2Cl^-$ cotransport are all involved, Cremaschi, D., Porta, C., Bottà, G., Meyer, G. 129:221
–, volume-dependent regulation of sodium and potassium fluxes in cultured vascular smooth muscle cells: dependence on medium osmolality and regulation by signalling systems, Orlov, S.N., Resink, T.J., Bernhardt, J., Buhler, F.R. 129:199
Na^+/Na^+ exchange
–, ion fluxes in *Acetabularia*: Vesicular shuttle, Mummert, H., Gradmann, D. 124:255
Natriferic effect
–, Ca^{2+}-independent form of protein kinase C may regulate Na^+ transport across frog skin, Civan, M.M., Oler, A., Peterson-Yantorno, K., George, K., O'Brien, T.G. 121:37
Nb2 cells
–, characterization of K^+ currents in rat malignant lymphocytes (Nb2 cells), Cukierman, S. 126:147
Necturus
–, Ca^{2+}-dependent chloride conductance in *Necturus* taste cells, McBride, D.W., Jr., Roper, S.D. 124:85
–, diversity of K^+ channels in the basolateral membrane of resting *Necturus* oxyntic cells, Supplisson, S., Loo, D.D.F., Sachs, G. 123:209
Necturus maculosus
–, Ca^{2+}-dependent chloride conductance in *Necturus* taste cells, McBride, D.W., Jr., Roper, S.D. 124:85
Neuromuscular junction
–, activation of skeletal muscle nicotinic acetylcholine receptors, Lingle, C.J., Maconochie, D., Steinbach, J.H. 126:195
Neurospora crassa
–, patch clamping VDAC in liposomes containing whole mitochondrial membranes, Wunder, U.R., Colombini, M. 123:83
Nicotinic acetylcholine receptor
–, activation of skeletal muscle nicotinic acetylcholine receptors, Lingle, C.J., Maconochie, D., Steinbach, J.H. 126:195
–, molecular environment of the phencyclidine binding site in the nicotinic acetylcholine receptor membrane, Palma, A.L., Wang, H.H. 122:143
Nifedepine
–, calcium-dependent control of volume regulation in renal proximal tubule cells: II. role of dihydropyridine-sensitive and -insensitive Ca^{2+} entry pathways, McCarty, N.A., O'Neil, R.G. 123:161
Nitella
–, patch-clamp studies on the anomalous mole fraction effect of the K^+ channel in cytoplasmic droplets of *Nitella*: an attempt to distinguish between a multi-ion single-file pore and an enzyme kinetic model with lazy state, Draber, S., Schultze, R., Hansen, U.P. 123:183
5-Nitro-2-(3-phenylpropylamino)benzoic acid (NPPB)
–, modification of gating of an airway epithelial chloride channel by 5-nitro-2-(3-phenylpropylamino)benzoic acid (NPPB), Alton, E.W.F.W., Williams, A.J. 128:141
Nitrobenzylthioinosine (NBMPR)
–, uridine transport in basolateral plasma membrane vesicles from rat liver, Ruiz-Montasell, B., Casado, F.J., Felipe, A., Pastor-Anglada, M. 128:227
Nonselective cation channels
–, cell swelling activates K^+ and Cl^+ channels as well as nonselective, stretch-activated cation channels in Ehrlich ascites tumor cells, Christensen, O., Hoffmann, E.K. 129:13
Norepinephrine release
–, activation of K^+ channels by lanthanum contributes to the block of transmitter release in chick and rat sympathetic neurons, Przywara, D.A., Bhave, S.V., Bhave, A., Chowdhury, P.S., Wakade, T.D., Wakade, A.R. 125:155
Nuclear envelope
–, ion channels in murine nuclei during early development and in fully differentiated adult cells, Mazzanti, M., DeFilice, L.J., Smith, E.F. 121:189
Nuclear membrane
–, chloride channels in the nuclear membrane, Tabares, L., Mazzanti, M., Clapham, D.E. 123:49
Nuclear pores
–, ion channels in murine nuclei during early development and in fully differentiated adult cells, Mazzanti, M., DeFilice, L.J., Smith, E.F. 121:189

Nucleoside transport
–, uridine transport in basolateral plasma membrane vesicles from rat liver, Ruiz-Montasell, B., Casado, F.J., Felipe, A., Pastor-Anglada, M. 128:227
Nucleotide-gated channels
–, gating of retinal rod cation channel by different nucleotides: comparative study of unitary currents, Ildefonse, M., Crouzy, S., Bennett, N. 130:91
Nystatin
–, analysis and use of the perforated patch technique for recording ionic currents in pancreatic β-cells, Sala, S., Parsey, R.V., Cohen, A.S., Matteson, D.R. 122:177
–, Na^+ transport and impedance properties of cultured renal (A6 and 2F3) epithelia, Wills, N.K., Purcell, R.K., Clausen, C. 125:273
Obese mice
–, comparison of the properties of the ATP-sensitive K^+ channels of pancreatic β-cells of lean and obese (ob/ob) CC57BL/6J mice, Fournier, L., Bégin-Heick, N., Whitfield, J.F., Schwartz, J.L. 129:267
1-Oleoyl-2-acetyl-sn-glycerol (OAG)
–, opposite effects of angiotensin II and the protein kinase C activator OAG on cardiac Na^+ channels, Benz, I., Herzig, J.W., Kohlhardt, M. 130:183
Olfactory receptor neuron
–, IP_3- and cAMP-induced responses in isolated olfactory receptor neurons from the channel catfish, Miyamoto, T., Restrepo, D., Cragoe, E.J., Jr., Teeter, J.H. 127:173
Oligodendrocytes
–, tumor necrosis factor inhibits K^+ current expression in cultured oligodendrocytes, Soliven, B., Szuchet, S., Nelson, D.J. 124:127
Oocytes
–, heterologous expression of calcium channels, Nargeot, J., Dascal, N., Lester, H.A. 126:97
Open channel blocking drugs
–, dimensions of the ion channel in neuronal nicotinic acetylcholine receptor as estimated from analysis of conformation-activity relationships of open-channel blocking drugs, Zhorov, B.S., Brovtsyna, N.B., Gmiro, V.E., Lukomskaya, N.Y., Serdyuk, S.E., Potapyeva, N.N., Magazanik, L.G., Kurenniy, D.E., Skok, V.I. 121:119
Open probability
–, modification of gating of an airway epithelial chloride channel by 5-nitro-2-(3-phenylpropylamino)benzoic acid (NPPB), Alton, E.W.F.W., Williams, A.J. 128:141
–, single-channel study of the cGMP-dependent conductance of retinal rods from incorporation of native vesicles into planar lipid bilayers, Ildefonse, M., Bennett, N. 123:133
Open state kinetics
–, gating properties of cardiac Na^+ channels in cell-free conditions, Kohlhardt, M. 122:11
Opossum kidney
–, apical and basolateral effects of PTH in OK cells: transport inhibition, messenger production, effects of pertussis toxin, and interaction with a PTH analog, Reshkin, S.J., Forgo, J., Murer, H. 124:227
Organic cations
–, a choline transporter in renal brush-border membrane vesicles: energetics and structural specificity, Wright, S.H., Wunz, T.M., Wunz, T.P. 126:51
–, ion selectivity of colicin E1: II. permeability to organic cations, Bullock, J.O., Kolen, E.R., Shear, J.L. 128:1
Oscillating electric field
–, ion channel enzyme in an oscillating field, Markin, V.S., Liu, D., Gimsa, J., Strobel, R., Rosenberg, M.D., Tsong, T.Y. 126:137
Osmolality
–, hyperosmotic media inhibit voltage-dependent calcium influx and peptide release in *Aplysia* neurons, Loechner, K.J., Knox, R.J., Connor, J.A., Kaczmarek, L.K. 128:41
–, volume-dependent regulation of sodium and potassium fluxes in cultured vascular smooth muscle cells: dependence on medium osmolality and regulation by signalling systems, Orlov, S.N., Resink, T.J., Bernhardt, J., Buhler, F.R. 129:199
Osmolarity
–, Na^+ channel activity in cultured renal (A6) epithelium: regulation by solution osmolarity, Wills, N.K., Millinoff, L.P., Crowe, W.E. 121:79
Osmolyte flux
–, activation of osmolyte efflux from cultured renal papillary epithelial cells, Furlong, T.J., Moriyama, T., Spring, K.R. 123:269
–, specific protein phosphorylation occurs in molluscan red blood cell ghosts in response to hypoosmotic stress, Politis, A.D., Pierce, S.K. 124:169
Osmoregulation
–, osmotic effects of protein polymerization analysis of volume changes in sickle cell anemia red cells following deoxyhemoglobin S polymerization, Lew, V.L., Bookchin, R.M. 122:55
Osmotic stress
–, effects of osmotic stress on mast cell vesicles of the beige mouse, Brodwick, M.S., Curran, M., Edwards, C. 126:159
Osteoblastic cells
–, Ba^{2+}-induced action potentials in osteoblastic cells, Ferrier, J., Grygorczyk, C., Grygorczyk, R., Kesthely, A., Lagan, E., Xia, S.L. 123:255
Ouabain
–, effects of potassium-free media and ouabain on epithelial cell composition in toad urinary bladder studied with x-ray microanalysis, Bowler, J.M., Purves, R.D., Macknight, D.C. 123:115
–, intracellular ion concentrations in the isolated frog skin epithelium: evidence for different types of mitochondria-rich cells, Rick, R. 127:227
–, regulation of principal cell pH by Na/H exchange in rabbit cortical collecting tubule, Silver, R.B., Frindt, G., Palmer, L.G. 125:13
Outward currents
–, a transient outward current dependent on external calcium in rat cerebellar granule cells, Carignani, C., Robello, M., Marchetti, C., Maga, L. 122:259
Outward rectifying channels
–, G-protein activators induce a potassium conductance in murine macrophages, McKinney, L.C., Gallin, E.K. 130:265
–, outwardly rectifying chloride channels in lymphocytes, Garber, S.S. 127:49
–, transient outwardly rectifying potassium channel in the rabbit corneal endothelium, Watsky, M.A., Cooper, K., Rae, J.L. 128:123
–, whole-cell K^+ current activation in response to voltages and carbachol in gastric parietal cells isolated from guinea pig, Kotera, T., Hashimoto, A., Ueda, S., Okada, Y. 124:43
Ovalocytes
–, decreased rotational diffusion of band 3 in Melanesian ovalocytes from Papua, New Guinea, Tilley, L., Nash, G.B., Jones, G.L., Sawyer, W.H. 121:59

Oxyntic cells
–, diversity of K^+ channels in the basolateral membrane of resting *Necturus* oxyntic cells, Supplisson, S., Loo, D.D.F., Sachs, G. 123:209
Pancreatic β-cells
–, comparison of the properties of the ATP-sensitive K^+ channels of pancreatic β-cells of lean and obese (ob/ob) CC57BL/6J mice, Fournier, L., Bégin-Heick, N., Whitfield, J.F., Schwartz, J.L. 129:267
–, two sites for adenine-nucleotide regulation of ATP-sensitive potassium channels in mouse pancreatic β-cells and HIT cells, Hopkins, W.F., Fatherazi, S., Peter-Riesch, B., Corkey, B.E., Cook, D.L 129:287
Pancreatic islet cells
–, role voltage-dependent ionic currents in coupling glucose stimulation to insulin secretion in canine pancreatic islet B-cells, Pressel, D.M., Misler, S. 124:239
Pancreatic microsomal vesicles
–, association of a 19- and a 21-kDa GTP-binding protein to pancreatic microsomal vesicles is regulated by the intravesicular pH established by a vacuolar-type H^+-ATPase, Zeuzem, S., Zimmermann, P., Schulz, I. 125:231
Pancreatic zymogen granules
–, ATP-sensitive K^+ conductance in pancreatic zymogen granules: block by glyburide and activation by diazoxide, Thévenod, F., Chathadi, K.V., Jiang, B., Hopfer, U. 129:253
Papaverine
–, papaverine reduces the sodium permeability of the apical membrane and the potassium permeability of the basolateral membrane in isolated frog skin, Andersen, H., Nielsen, R. 126:235
Parathyroid hormone (PTH)
–, apical and basolateral effects of PTH in OK cells: transport inhibition, messenger production, effects of pertussis toxin, and interaction with a PTH analog, Reshkin, S.J., Forgo, J., Murer, H. 124:227
–, apical and basolateral Na/H exchange in cultured murine proximal tubule cells (MCT): effect of parathyroid hormone (PTH), Mrkic, B., Forgo, J., Murer, H., Helmle-Kolb, C. 130:205
Parietal cells
–, muscarinic responses of gastric parietal cells, Wilkes, J.M., Kajimura, M., Scott, D.R., Hersey, S.J., Sachs, G. 122:97
–, whole-cell K^+ current activation in response to voltages and carbachol in gastric parietal cells isolated from guinea pig, Kotera, T., Hashimoto, A., Ueda, S., Okada, Y. 124:43
Patch clamp
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. I. effects of caffeine on intracellular Ca^{2+} stores, Thuringer, D., Sauvé 130: 125
–, a TEA-insensitive flickering potassium channel active around the resting potential in myelinated nerve, Koh, D.S., Jonas, P., Bräu, M.E., Vogel, W. 130:149
–, activation of K^+ and CL^- channels in MDCK cells during volume regulation in hypotonic media, Banderali, U., Roy, G. 126:219
–, analysis and use of the perforated patch technique for recording ionic currents in pancreatic β-cells, Sala, S., Parsey, R.V., Cohen, A.S., Matteson, D.R. 122:177
–, background calcium permeable channels in glomerulosa cells from adrenal gland, Durroux, T., Gallo-Payet, N., Bilodeau, L., Payet, M.D. 129:145
–, cell swelling activates K^+ and Cl^+ channels as well as nonselective, stretch-activated cation channels in Ehrlich ascites tumor cells, Christensen, O., Hoffmann, E.K. 129:13
–, chloride channels in the nuclear membrane, Tabares, L., Mazzanti, M., Clapham, D.E. 123:49
–, chloride channels on epithelial cells cultured from human fetal epididymis, Pollard, C.E., Harris, A., Coleman, L., Argent, B.E. 124:275
–, diversity of K^+ channels in the basolateral membrane of resting *Necturus* oxyntic cells, Supplisson, S., Loo, D.D.F., Sachs, G. 123:209
–, identification of anion and cation pathways in the inner mitochondrial membrane by patch clamping of mouse liver mitoplasts, Antonenko, Y.N., Kinnally, K.W., Tedeschi, H. 124:151
–, inwardly rectifying potassium current in rabbit osteoclasts: a whole-cell and single-channel study, Kelly, M.E.M., Dixon, S.J., Sims, S.M. 126:171
–, ion channels activated by swelling of Madin Darby canine kidney (MDCK) cells, Weiss, H., Lang, F. 126:109
–, ion channels in murine nuclei during early development and in fully differentiated adult cells, Mazzanti, M., DeFilice, L.J., Smith, E.F. 121:189
–, ion channels in the plasma membrane of *Amaranthus* protoplasts: one cation and one anion channel dominate the conductance, Terry, B.R., Tyerman, S.D., Findlay, G.P. 121:223
–, liquid junction potentials and small cell effects in patch-clamp analysis, Barry, P.H., Lynch, J.W. 121:101
–, mechanism of asymmetric block of K channels by tetraalkylammonium ions in mouse neuroblastoma cells, Im, M.B., Quandt, F.N. 130:115
–, patch-clamp studies on the anomalous mole fraction effect of the K^+ channel in cytoplasmic droplets of *Nitella*: an attempt to distinguish between a multi-ion single-file pore and an enzyme kinetic model with lazy state, Draber, S., Schultze, R., Hansen, U.P. 123:183
–, patch clamping VDAC in liposomes containing whole mitochondrial membranes, Wunder, U.R., Colombini, M. 123:83
–, regulation of a potassium-selective current in rabbit corneal epithelium by cyclic GMP, carbachol and diltiazem, Farrugia, G., Rae, J.L. 129:99
–, single-channel K^+ currents in *Drosophila* muscle and their pharmacological block, Gorczyca, M.G., Wu, C.F. 121:237
–, single-membrane and cell-to-cell permeability properties of dissociated embryonic chick lens cells, Miller, A.G., Zampighi, G.A., Hall, J.E. 128:91
–, slow inactivation of tetrodotoxin-insensitive Na^+ channels in neurons of rat dorsal root ganglia, Ogata, N., Tatebayashi, H. 129:71
–, transient outwardly rectifying potassium channel in the rabbit corneal endothelium, Watsky, M.A., Cooper, K., Rae, J.L. 128:123
–, variety of Ca^{2+}-permeable channels in human carcinoma A431 cells, Mozhayeva, G.N., Naumov, A.P., Kuryshev, Y.A. 124:113
–, whole-cell and single-channel currents across the plasmalemma of corn shoot suspension cells, Fairley, K., Laver, D., Walker, N.A. 121:11
–, whole-cell potassium current in rabbit corneal epithelium activated by fenamates, Rae, J.L., Farrugia, G. 129:81
PEDST sequence
–, mapping of the calpain proteolysis products of the junctional foot protein of the skeletal muscle triad junction, Brandt, N.R., Caswell, A.H., Brandt, T., Brew, K., Mellgren, R.L. 127:35

Peptide antibodies
–, depolarization exposes the voltage sensor of the sodium channels to the extracellular region, Sammar, M., Spira, G., Meiri, H. 125:1
Peptide secretion
–, hyperosmotic media inhibit voltage-dependent calcium influx and peptide release in *Aplysia* neurons, Loechner, K.J., Knox, R.J., Connor, J.A., Kaczmarek, L.K. 128:41
Perforated patch technique
–, analysis and use of the perforated patch technique for recording ionic currents in pancreatic β-cells, Sala, S., Parsey, R.V., Cohen, A.S., Matteson, D.R. 122:177
–, transient outwardly rectifying potassium channel in the rabbit corneal endothelium, Watsky, M.A., Cooper, K., Rae, J.L. 128:123
Peripheral proteins
–, the structure and function of membranes—a personal memoir, Singer, S J. 129:3
Permeability
–, anion and cation permeability of a large conductance anion channel in the T84 human colonic cell line, Vaca, L., Kunze, D.L. 130:241
–, diltiazem at high concentration increases the ionic permeability of biological membranes, Caretta, A., Sorbi, R.T., Stein, P.J., Tirindelli, R. 122:203
–, ion selectivity of colicin E1: II. permeability to organic cations, Bullock, J.O., Kolen, E.R., Shear, J.L. 128:1
–, partial purification of a potassium channel with low permeability for sodium from tonoplast membranes of *Hordeum vulgare* cv. gerbel, Klughammer, B., Betz, M., Benz, R., Dietz, K.J. 128:17
–, permeance of Cs^+ and Rb^+ through the inwardly rectifying K^+ channels in guinea pig ventricular myocytes, Mitra, R.L., Morad, M. 122:33
–, permeation of Ca^{2+} through K^+ channels in the plasma membrane of *Vicia faba* guard cells, Fairley-Grenot, K.A., Assmann, S.M. 128:103
–, the permeability of reconstituted liposomes containing the purified lens fiber cell integral membrane proteins MP20, MP26, and MP70, Jarvis, L.J., Louis, C.F. 130:251
Peroxisomal proteins
–, targeting of proteins into the peroxisomal matrix, Subramani, S. 125:99
Pertussis toxin
–, angiotensin II directly increases rabbit renal brush-border membrane sodium transport: presence of local signal transduction system, Morduchowicz, G.A., Sheikh-Hamad, D., Dwyer, B.E., Stern, N., Jo, O.D., Yanagawa, N. 122: 43
–, apical and basolateral effects of PTH in OK cells: transport inhibition, messenger production, effects of pertussis toxin, and interaction with a PTH analog, Reshkin, S.J., Forgo, J., Murer, H. 124:227
–, pertussis toxin stimulation of catecholamine release from adrenal medullary chromaffin cells: mechanism may be by direct activation of L-type and G-type calcium channels, Ceña, V., Brocklehurst, K.W., Pollard, H.B., Rojas, E. 122:23
pH
–, *Chara* plasmalemma at high pH: voltage dependence of the conductance at rest and during excitation, Beilby, M.J., Bisson, M.A. 125:25
–, effect of high pH on the plasma membrane potential and conductance in *Elodea densa*, Miedema, H., Felle, H., Prins, H.B.A 128:63
–, electrogenic proton secretion in the hindgut of the desert locust, *Schistocerca gregaria*, Thomson, R.B., Phillips, J.E. 125:133
–, evidence that plasma membrane electrical potential is required for vesicular stomatitis virus infection of MDCK cells: a study using fluorescence measurements through polycarbonate supports, Akeson, M., Scharff, J., Sharp, C.M., Neville, D.M., Jr. 125:81
–, ion selectivity of colicin E1: modulation by pH and membrane composition, Bullock, J.O. 125:255
–, ionic effects on bumetaide binding to the activated Na/K/Cl cotransporter: selectivity and kinetics properties of ion binding sites, Hegde, R., Palfrey, H.C. 126:27
–, response of chloride efflux from skeletal muscle of *Rana pipiens* to changes of temperature and membrane potential and diethylpyrocarbonate treatment, Spalding, B.C., Taber, P., Swift, J.G., Horowicz, P. 123:223
pH regulation
–, pH regulation in tissue-cultured bovine lens epithelial cells, Williams, M.R., Duncan, G., Croghan, P.C., Riach, R., Webb, S.F. 129:179
pH sensitive dye
–, K-induced alkalinization in all cell types of rabbit gastric glands: a novel K/H exchange mechanism, Hofer, A.M., Machen, T.E. 126:245
Phencyclidine
–, molecular environment of the phencyclidine binding site in the nicotinic acetylcholine receptor membrane, Palma, A.L., Wang, H.H. 122:143
Phosphate
–, cation transport in vascular endothelial cells and aging, Adragna, N.C. 124:285
Phospholipase A_2
–, angiotensin II directly increases rabbit renal brush-border membrane sodium transport: presence of local signal transduction system, Morduchowicz, G.A., Sheikh-Hamad, D., Dwyer, B.E., Stern, N., Jo, O.D., Yanagawa, N. 122:43
Phospholipase C
–, assembly and sealing of tight junctions: possible participation of G-proteins, phospholipase C, protein kinase C and calmodulin, Balda, M.S., González-Mariscal, L., Contreras, R.G., Macias-Silva, M., Toress-Marquez, M.E., Sáinz, J.A.G., Cereijido, M. 122:193
Phospholipases
–, epidermal growth factor receptor: elements of intracellular communication, Hernández-Sotomayor, S.M.T., Carpenter, G. 128:81
Phospholipid vesicles
–, diltiazem at high concentration increases the ionic permeability of biological membranes, Caretta, A., Sorbi, R.T., Stein, P.J., Tirindelli, R. 122:203
–, membrane destabilization by N-terminal peptides of viral envelope proteins, Düzgüneş, N., Shavnin, S.A. 128:71
Phospholipids
–, phospholipid dependence of rat liver microsomal acyl : CoA synthetase and acyl-CoA : 1-acyl-*sn*-glycero-3-phosphocholine O-acyltransferase, Koshlukova, S.E., Momchilova-Pankova, A.B., Markovska, T.T., Koumanov, K.S. 127:113
–, reconstitution of sodium channels in large liposomes formed by the addition of acidic phospholipids and freeze-thaw sonication, Migual, V., Balbi, D., Castillo, C., Villegas, R. 129:37
–, sarcolemmal calcium binding sites in heart: I. molecular origin in "gas-dissected" sarcolemma, Post, J.A., Langer, G.A. 129:49

Phosphorylation
–, epidermal growth factor receptor: elements of intracellular communication, Hernández-Sotomayor, S.M.T., Carpenter, G. 128:81
–, opposite effects of angiotensin II and the protein kinase C activator OAG on cardiac Na^+ channels, Benz, I., Herzig, J.W., Kohlhardt, M. 130:183
–, phosphorylation modulates the voltage-dependence of channels reconstituted from the major intrinsic protein of lens fiber membranes, Ehring, G.R., Lagos, N., Zampighi, G.A., Hall, J.E. 126:75
Photoaffinity labeling
–, characterization by photoaffinity labeling of a steroid binding protein in rat liver plasma membrane, Ibarrola, I., Alejandro, A., Marino, A., Sancho, M.J., Macarulla, J.M., Trueba, M. 125:185
Photoreceptors
–, diltiazem at high concentration increases the ionic permeability of biological membranes, Caretta, A., Sorbi, R.T., Stein, P.J., Tirindelli, R. 122:203
–, single-channel study of the cGMP-dependent conductance of retinal rods from incorporation of native vesicles into planar lipid bilayers, Ildefonse, M., Bennett, N. 123:133
Phytotoxin
–, anion channel forming activity from the plant pathogenic bacterium *Clavibacter michiganense ssp. nebraskense*, Schrholz, T., Wilimzig, M., Katsiou, E., Eichenlaub, R. 123:1
Pig brain
–, angiotensin II, vasopressin and GTP[γ-S] inhibit inward-rectifying K^+ channels in porcine cerebral capillary endothelial cells, Hoyer, J., Popp, R., Meyer, J., Galla, H.J., Gögelein, H. 123:55
Pig ileum
–, inhibition of ileal brush-border chloride conductance by specific antibody, Gabriel, S.E., Racette, K.J., Gaspar, K.J., Forsyth, G.W. 129:323
Planar lipid bilayers
–, anion channel forming activity from the plant pathogenic bacterium *Clavibacter michiganense ssp. nebraskense*, Schrholz, T., Wilimzig, M., Katsiou, E., Eichenlaub, R. 123:1
–, anion channels from rat brain synaptosomal membranes incorporated into planar bilayers, Nomura, K., Sokabe, M. 124:53
–, calcium-independent K^+-selective channel from chromaffin granule membranes, Arispe, N., Pollard, H.B., Rojas, E. 130:191
–, channel reconstitution in liposomes and planar bilayers with HPLC-purified MIP26 of bovine lens, Shen, L., Shrager, P., Girsch, S.J., Donaldson, P.J., Peracchia, C. 124:21
–, Cl^- channels in basolateral renal medullary membrane vesicles: IV. analogous channel activation by Cl^- or cAMP-dependent protein kinase, Winters, C.J., Reeves, W.B., Andreoli, T.E. 122:89
–, comparison of calcium release from sarcoplasmic reticulum of slow and fast twitch muscles, Lee, Y.S., Ondrias, K., Duhl, A.J., Ehrlich, B.E., Kim, D.H. 122:155
–, differential sensitivity of pneumolysin-induced channels to gating by divalent cations, Korchev, Y.E., Bashford, C.L., Pasternak, C.A. 127:195
–, gating of retinal rod cation channel by different nucleotides: comparative study of unitary currents, Ildefonse, M., Crouzy, S., Bennett, N. 130:91
–, inhibition of Ca-activated K^+ channels from renal microvillus membrane vesicles by amiloride analogs, Zweifach, A., Desir, G.V., Aronson, P.S., Giebisch, G. 128:115
–, ion selectivity of colicin E1: modulation by pH and membrane composition, Bullock, J.O. 125:255
–, ion selectivity of colicin E1: II. permeability to organic cations, Bullock, J.O., Kolen, E.R., Shear, J.L. 128:1
–, lithium-selective permeation through lipid bilayer membranes mediated by a di-imide ionophore with nonsymmetrical imide substituents (ETH1810), Zeevi, A., Margalit, R. 121:133
–, partial purification of a potassium channel with low permeability for sodium from tonoplast membranes of *Hordeum vulgare* cv. gerbel, Klughammer, B., Betz, M., Benz, R., Dietz, K.J. 128:17
–, properties of single- and double-barreled Cl channels of shark rectal gland in planar bilayers, Sansom, S.C., Carosi, S.L. 126:67
–, reconstitution of channels from preparation enriched in lens gap junction protein MP70, Donaldson, P., Kistler, J. 129:155
–, single-channel study of the cGMP-dependent conductance of retinal rods from incorporation of native vesicles into planar lipid bilayers, Ildefonse, M., Bennett, N. 123:133
–, toad bladder amiloride-sensitive channels reconstituted into planar lipid bilayers, Branco, L.G.S., Varanda, W.A. 127:121
Plant cells
–, permeation of Ca^{2+} through K^+ channels in the plasma membrane of *Vicia faba* guard cells, Fairley-Grenot, K.A., Assmann, S.M. 128:103
Plant vacuoles
–, cytoplasmic chloride regulates cation channels in the vacuolar membrane of plant cells, Pantoja, O., Dainty, J., Blumwald, E. 125:219
–, inhibition of inward rectifying tonoplast channels by a vacuolar factor: physiological and kinetic implications, Maathuis, F.J.M., Prins, B.A. 122:251
Plasma membrane
–, characterization by photoaffinity labeling of a steroid binding protein in rat liver plasma membrane, Ibarrola, I., Alejandro, A., Marino, A., Sancho, M.J., Macarulla, J.M., Trueba, M. 125:185
–, characterization of a plasma membrane H^+-ATPase from the extremely acidophilic alga *Dunaliella acidophila*, Sekler, I., Gläser, H.U., Pick, U. 121:51
–, effect of high pH on the plasma membrane potential and conductance in *Elodea densa*, Miedema, H., Felle, H., Prins, H.B.A 128:63
–, effects of inhibitors of ion-motive ATPases on the plasma membrane potential of murine erythroleukemia cells, Arcangeli, A., Del Bene, M.R., Becchetti, A., Wanke, E., Olivotto, M. 126:123
–, evidence that plasma membrane electrical potential is required for vesicular stomatitis virus infection of MDCK cells: a study using fluorescence measurements through polycarbonate supports, Akeson, M., Scharff, J., Sharp, C.M., Neville, D.M., Jr. 125:81
–, ion channels in the plasma membrane of *Amaranthus* protoplasts: one cation and one anion channel dominate the conductance, Terry, B.R., Tyerman, S.D., Findlay, G.P. 121:223
–, permeation of Ca^{2+} through K^+ channels in the plasma membrane of *Vicia faba* guard cells, Fairley-Grenot, K.A., Assmann, S.M. 128:103

–, rapid Ca^{2+} extrusion via the Na^+/Ca^{2+} exchanger of the human platelet, Valant, P.A., Adjei, P.N., Haynes, D.H. 130:63
Plasma membrane proteins
–, actions of cadmium on basolateral plasma membrane proteins involved in calcium uptake by fish intestine, Schoenmakers, T.J.M., Klaren, P.H.M., Flik, G., Lock, R.A.C., Pang, P.K.T., Bonga, S.E.W. 127:161
–, labeling of adipocyte membranes by sulfo-*N*-succinimidyl derivatives of long-chain fatty acids: inhibition of fatty acid transport, Harmon, C.M., Luce, P., Beth, A.H., Abumrad, N.A. 121:261
Plasma membrane vesicles
–, sodium-dependent L-serine transport in plasma membrane vesicles isolated from Ehrlich cells by two-phase compartmentation, Luque, P., Márquez, J., Núñez, I., Medina, M.A. 123:247
–, uridine transport in basolateral plasma membrane vesicles from rat liver, Ruiz-Montasell, B., Casado, F.J., Felipe, A., Pastor-Anglada, M. 128:227
Plasmalemma
–, purification and characterization of the apical plasma membrane of the rat pancreatic acinar cell, Paul, E., Hurtubise, Y., LeBel, D. 127:129
–, whole-cell and single-channel currents across the plasmalemma of corn shoot suspension cells, Fairley, K., Laver, D., Walker, N.A. 121:11
Pneumolysin
–, differential sensitivity of pneumolysin-induced channels to gating by divalent cations, Korchev, Y.E., Bashford, C.L., Pasternak, C.A. 127:195
Polycarbonate filters
–, evidence that plasma membrane electrical potential is required for vesicular stomatitis virus infection of MDCK cells: a study using fluorescence measurements through polycarbonate supports, Akeson, M., Scharff, J., Sharp, C.M., Neville, D.M., Jr. 125:81
Polysialic acid
–, monoclonal antibodies raised against post-translational domains of the electroplax sodium channel, Ivey, S., Thornhill, W.B., Levinson, S.R. 121:215
Post-translational domains
–, monoclonal antibodies raised against post-translational domains of the electroplax sodium channel, Ivey, S., Thornhill, W.B., Levinson, S.R. 121:215
Potassium channels
–, a TEA-insensitive flickering potassium channel active around the resting potential in myelinated nerve, Koh, D.S., Jonas, P., Bräu, M.E., Vogel, W. 130:149
–, cyclic GMP regulation of a voltage-activated K channel in dissociated enterocytes, O'Grady, S.M., Cooper, K.E., Rae, J.L. 124:159
–, G-protein activators induce a potassium conductance in murine macrophages, McKinney, L.C., Gallin, E.K. 130:265
–, ionic basis of methacholine-induced shrinkage of dissociated eccrine clear cells, Suzuki, Y., Ohtsuyama, M., Samman, G., Sato, F., Sato, K. 123:33
–, mechanism of asymmetric block of K channels by tetraalkylammonium ions in mouse neuroblastoma cells, Im, M.B., Quandt, F.N. 130:115
–, partial purification of a potassium channel with low permeability for sodium from tonoplast membranes of *Hordeum vulgare* cv. gerbel, Klughammer, B., Betz, M., Benz, R., Dietz, K.J. 128:17
–, transient outwardly rectifying potassium channel in the rabbit corneal endothelium, Watsky, M.A., Cooper, K., Rae, J.L. 128:123
Potassium conductance
–, effects of inhibitors of ion-motive ATPases on the plasma membrane potential of murine erythroleukemia cells, Arcangeli, A., Del Bene, M.R., Becchetti, A., Wanke, E., Olivotto, M. 126:123
–, G-protein activators induce a potassium conductance in murine macrophages, McKinney, L.C., Gallin, E.K. 130:265
Potassium current
–, a transient outward current dependent on external calcium in rat cerebellar granule cells, Carignani, C., Robello, M., Marchetti, C., Maga, L. 122:259
–, regulation of a potassium-selective current in rabbit corneal epithelium by cyclic GMP, carbachol and diltiazem, Farrugia, G., Rae, J.L. 129:99
–, whole-cell potassium current in rabbit corneal epithelium activated by fenamates, Rae, J.L., Farrugia, G. 129:81
Potassium flux
–, volume-dependent regulation of sodium and potassium fluxes in cultured vascular smooth muscle cells: dependence on medium osmolality and regulation by signalling systems, Orlov, S.N., Resink, T.J., Bernhardt, J., Buhler, F.R. 129:199
Potassium ion channels
–, activation of K^+ and CL^- channels in MDCK cells during volume regulation in hypotonic media, Banderali, U., Roy, G. 126:219
–, activation of K^+ channels by lanthanum contributes to the block of transmitter release in chick and rat sympathetic neurons, Przywara, D.A., Bhave, S.V., Bhave, A., Chowdhury, P.S., Wakade, T.D., Wakade, A.R. 125:155
–, angiotensin II, vasopressin and GTP[γ-S] inhibit inward-rectifying K^+ channels in porcine cerebral capillary endothelial cells, Hoyer, J., Popp, R., Meyer, J., Galla, H.J., Gögelein, H. 123:55
–, calcium-independent K^+-selective channel from chromaffin granule membranes, Arispe, N., Pollard, H.B., Rojas, E. 130:191
–, cell swelling activates K^+ and Cl^+ channels as well as nonselective, stretch-activated cation channels in Ehrlich ascites tumor cells, Christensen, O., Hoffmann, E.K. 129:13
–, diversity of K^+ channels in the basolateral membrane of resting *Necturus* oxyntic cells, Supplisson, S., Loo, D.D.F., Sachs, G. 123:209
–, inwardly rectifying potassium current in rabbit osteoclasts: a whole-cell and single-channel study, Kelly, M.E.M., Dixon, S.J., Sims, S.M. 126:171
–, ion channels activated by swelling of Madin Darby canine kidney (MDCK) cells, Weiss, H., Lang, F. 126:109
–, patch-clamp studies on the anomalous mole fraction effect of the K^+ channel in cytoplasmic droplets of *Nitella*: an attempt to distinguish between a multi-ion single-file pore and an enzyme kinetic model with lazy state, Draber, S., Schultze, R., Hansen, U.P. 123:183
–, permeation of Ca^{2+} through K^+ channels in the plasma membrane of *Vicia faba* guard cells, Fairley-Grenot, K.A., Assmann, S.M. 128:103
–, stretch activation of the *Aplysia* S-channel, Vandorpe, D.H., Morris, C.E. 127:205
–, whole-cell K^+ current activation in response to voltages and carbachol in gastric parietal cells isolated from guinea pig, Kotera, T., Hashimoto, A., Ueda, S., Okada, Y. 124:43

Potassium ion conductance
–, ATP-sensitive K^+ conductance in pancreatic zymogen granules: block by glyburide and activation by diazoxide, Thévenod, F., Chathadi, K.V., Jiang, B., Hopfer, U. 129:253
–, basolateral membrane potassium conductance of A6 cells, Broillet, M.C., Horisberger, J.D. 124:1
–, biphasic increase of apical Cl^- conductance by muscarinic stimulation of HT-29cl.19A human colon carcinoma cell line: evidence for activation of different Cl^- conductances by carbachol and forskolin, Bajnath, R.B., Dekker, K., Vaandrager, A.B., de Jonge, H.R., Groot, J.A. 127:81
–, block of the sheep cardiac sarcoplasmic reticulum Ca^{2+}-release channel by tetra-alkyl ammonium cations, Tinker, A., Lindsay, A.R.G., Williams, A.J. 127:149
–, differences in Ca^{2+}-mediation of hypotonic and Na^+-nutrient regulatory volume decrease in suspensions of jejunal enterocytes, MacLeod, R.J., Lembessis, P., Hamilton, J.R. 130:23
–, diversity of K^+ channels in the basolateral membrane of resting *Necturus* oxyntic cells, Supplisson, S., Loo, D.D.F., Sachs, G. 123:209
–, electrophysiological studies of forskolin-induced changes in ion transport in the human colon carcinoma cell line HT-29 cl.19A: lack of evidence for a cAMP-activated basolateral K^+ conductance, Bajnath, R.B., Augeron, C., Laboisse, C.L., Bijman, J., de Jonge, H.R., Groot, J.A. 122:239
Potassium ion contracture
–, effects of Ca^{2+} and other divalent cations on K^+-evoked force production of slow muscle fibers from *Rana esculenta* and *Rana pipiens*, Krippeit-Drews, P., Schmidt, H. 129:211
Potassium ion currents
–, characterization of K^+ currents in rat malignant lymphocytes (Nb2 cells), Cukierman, S. 126:147
–, inwardly rectifying potassium current in rabbit osteoclasts: a whole-cell and single-channel study, Kelly, M.E.M., Dixon, S.J., Sims, S.M. 126:171
–, lipopolysaccharide induction of outward potassium current expression in human monocyte-derived macrophages: lack of correlation with secretion, Nelson, D.J., Jow, B., Jow, F. 125:207
–, membrane transport in stomatal guard cells: the importance of voltage control, Thiel, G., MacRobbie, E.A.C., Blatt, M.R. 126:1
–, role voltage-dependent ionic currents in coupling glucose stimulation to insulin secretion in canine pancreatic islet B-cells, Pressel, D.M., Misler, S. 124:239
–, single-channel K^+ currents in *Drosophila* muscle and their pharmacological block, Gorczyca, M.G., Wu, C.F. 121:237
–, tumor necrosis factor inhibits K^+ current expression in cultured oligodendrocytes, Soliven, B., Szuchet, S., Nelson, D.J. 124:127
–, whole-cell and single-channel currents across the plasmalemma of corn shoot suspension cells, Fairley, K., Laver, D., Walker, N.A. 121:11
Potassium ion induction
–, serum independence of low K^+ induction of Na,K-ATPase: possible role of *c-fos*, Cayanis, E., Russo, J.J., Wu, Y., Edlman, I.S. 125:163
Potassium ions
–, evidence that plasma membrane electrical potential is required for vesicular stomatitis virus infection of MDCK cells: a study using fluorescence measurements through polycarbonate supports, Akeson, M., Scharff, J., Sharp, C.M., Neville, D.M., Jr. 125:81
Potassium permeability
–, papaverine reduces the sodium permeability of the apical membrane and the potassium permeability of the basolateral membrane in isolated frog skin, Andersen, H., Nielsen, R. 126:235
Potassium recycling
–, cyclic GMP regulation of a voltage-activated K channel in dissociated enterocytes, O'Grady, S.M., Cooper, K.E., Rae, J.L. 124:159
Potassium secretion
–, cyclic GMP regulation of a voltage-activated K channel in dissociated enterocytes, O'Grady, S.M., Cooper, K.E., Rae, J.L. 124:159
Potassium transport
–, cation transport in vascular endothelial cells and aging, Adragna, N.C. 124:285
Potential-sensitive dyes
–, a naphthyl analog of the aminostyryl pyridinium class of potentiometric membrane dyes shows consistent sensitivity in a variety of tissue, cell, and model membrane preparations, Loew, L.M., Cohen, L.B., Dix, J., Fluhler, E.N., Montana, V., Salama, G., Jian-young, W. 130:1
–, response of the electrochromic dye, merocyanine 540, to membrane potential in rat liver mitochondria, Kalenak, A., McKenzie, R.J., Conover, T.E. 123:23
Potentiometric dyes
–, charge translocation by the Na,K pump: II. ion binding and release at the extracellular face, Stürmer, W., Bühler, R., Apell, H.J., Läuger, P. 121:163
–, charge translocation by the Na,K-pump: I. kinetics of local field changes studied by time-resolved fluorescence measurements, Bühler, R., Stürmer, W., Apell, J.J., Läuger, P. 121:141
Presteady-state kinetics
–, electrogenic properties of the cloned Na^+/glucose cotransporter: I. voltage-clamp studies, Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M. 125:49
–, electrogenic properties of the cloned Na^+/glucose cotransporter: II. a transport model under nonrapid equilibrium conditions, Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M. 125:63
Procaine
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. I. effects of caffeine on intracellular Ca^{2+} stores, Thuringer, D., Sauvé 130:125
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. II. effects of thapsigargin on the cellular Ca^{2+} homeostasis, Thuringer, D., Sauvé, R. 130:139
Proline
–, dissecting the molecular mechanism of ion-solute cotransport: substrate specificity mutations in the *putP* gene affect the kinetics of proline transport, Myers, R.S., Townsend, D., Maloy, S. 121:201
–, structural analogues of pyrroline 5-carboxylate specifically inhibit its uptake into cells, Mixson, A.J., Phang, J.M. 121:269
Propranolol
–, identification of anion and cation pathways in the inner mitochondrial membrane by patch clamping of mouse liver mitoplasts, Antonenko, Y.N., Kinnally, K.W., Tedeschi, H. 124:151
Proteases
–, urinary proteases degrade epithelial sodium channels, Lewis, S.A., Clausen, C. 122:77

Protein kinase
–, regulation of endogenous and expressed Na^+/K^+ pumps in *Xenopus* oocytes by membrane potential and stimulation of protein kinases, Vasilets, L.A., Schwarz, W. 125:119
Protein kinase A
–, Cl^- channels in basolateral renal medullary vesicles: V. comparison of basolateral mTALH Cl^- channels with apical Cl^- channels from jejunum and trachea, Winters, C.J., Reeves, W.B., Andreoli, T.E. 128:27
–, Na^+/H^+-exchange in A6 cells: polarity and vasopressin regulation, Casavola, V., Guerra, L., Helmle-Kolb, C., Reshkin, S.J., Murer, H. 130:105
Protein kinase C
–, assembly and sealing of tight junctions: possible participation of G-proteins, phospholipase C, protein kinase C and calmodulin, Balda, M.S., González-Mariscal, L., Contreras, R.G., Macias-Silva, M., Toress-Marquez, M.E., Sáinz, J.A.G., Cereijido, M. 122:193
–, Ca^{2+}-independent form of protein kinase C may regulate Na^+ transport across frog skin, Civan, M.M., Oler, A., Peterson-Yantorno, K., George, K., O'Brien, T.G. 121: 37
–, Na^+/H^+-exchange in A6 cells: polarity and vasopressin regulation, Casavola, V., Guerra, L., Helmle-Kolb, C., Reshkin, S.J., Murer, H. 130:105
–, opposite effects of angiotensin II and the protein kinase C activator OAG on cardiac Na^+ channels, Benz, I., Herzig, J.W., Kohlhardt, M. 130:183
Protein phosphorylation
–, specific protein phosphorylation occurs in molluscan red blood cell ghosts in response to hypoosmotic stress, Politis, A.D., Pierce, S.K. 124:169
Protein polymerization
–, osmotic effects of protein polymerization analysis of volume changes in sickle cell anemia red cells following deoxyhemoglobin S polymerization, Lew, V.L., Bookchin, R.M. 122:55
Proton conductance
–, amiloride sensitivity of proton-conductive pathways in gastric and intestinal apical membrane vesicles, Wilkes, J.M., Hirst, B.H. 126:115
Proton permeability
–, amiloride sensitivity of proton-conductive pathways in gastric and intestinal apical membrane vesicles, Wilkes, J.M., Hirst, B.H. 126:115
–, effect of high pH on the plasma membrane potential and conductance in *Elodea densa*, Miedema, H., Felle, H., Prins, H.B.A 128:63
Proton secretion
–, electrogenic proton secretion in the hindgut of the desert locust, *Schistocerca gregaria*, Thomson, R.B., Phillips, J.E. 125:133
Protooncogenes
–, serum independence of low K^+ induction of Na,K-ATPase: possible role of *c-fos*, Cayanis, E., Russo, J.J., Wu, Y., Edlman, I.S. 125:163
Protoplasts
–, ion channels in the plasma membrane of *Amaranthus* protoplasts: one cation and one anion channel dominate the conductance, Terry, B.R., Tyerman, S.D., Findlay, G.P. 121:223
–, whole-cell and single-channel currents across the plasmalemma of corn shoot suspension cells, Fairley, K., Laver, D., Walker, N.A. 121:11
Proximal tubule
–, a choline transporter in renal brush-border membrane vesicles: energetics and structural specificity, Wright, S.H., Wunz, T.M., Wunz, T.P. 126:51
–, apical and basolateral Na/H exchange in cultured murine proximal tubule cells (MCT): effect of parathyroid hormone (PTH), Mrkic, B., Forgo, J., Murer, H., Helmle-Kolb, C. 130:205
–, calcium-dependent control of volume regulation in renal proximal tubule cells: I. swelling-activated Ca^{2+} entry and release, McCarty, N.A., O'Neil, R.G. 123:149
–, calcium-dependent control of volume regulation in renal proximal tubule cells: II. role of dihydropyridine-sensitive and -insensitive Ca^{2+} entry pathways, McCarty, N.A., O'Neil, R.G. 123:161
–, H^+ extrusion by an apical vacuolar-type H^+-ATPase in rat renal proximal tubules, Zimolo, Z., Montrose, M.H., Murer, H. 126:19
–, intracellular potassium activity in mammalian proximal tubule: effect of perturbations in transepithelial sodium transport, Laprade, R., Lapointe, J.Y., Breton, S., Duplain, M., Cardinal, J. 121:249
–, substrate-induced modulation of ATP turnover in dog and rabbit proximal tubules, Noël, J., Tejedor, A., Vinay, P., Laprade, R. 128:205
Purine nucleotides
–, inner mitochondrial membrane anion channel is present in brown adipocytes but is not identical with the uncoupling protein, Klitsch, T., Siemen, D. 122:69
Purinergic receptor
–, ATP activates a Ca^{2+}-dependent Cl^- current in the rat thyroid cell line, FRTL-5, Martin, S.C. 125:243
putP gene
–, dissecting the molecular mechanism of ion-solute cotransport: substrate specificity mutations in the *putP* gene affect the kinetics of proline transport, Myers, R.S., Townsend, D., Maloy, S. 121:201
Pyridoxal 5′-phosphate
–, measurement of exofacially reactive lysines in human erythrocyte band 3 using pyridoxal 5′-phosphate, Salhany, J.M. 121:91
Pyrroline 5-carboxylate uptake
–, structural analogues of pyrroline 5-carboxylate specifically inhibit its uptake into cells, Mixson, A.J., Phang, J.M. 121:269
Quin-2
–, calcium influx and intracellular calcium release in anti-CD3 antibody-stimulated and thapsigargin-treated human T lymphoblasts, Sarkadi, B., Tordai, A., Homolya, L., Scharff, O., Gárdos, G. 123:9
–, rapid Ca^{2+} extrusion via the Na^+/Ca^{2+} exchanger of the human platelet, Valant, P.A., Adjei, P.N., Haynes, D.H. 130:63
Quinidine
–, basolateral membrane potassium conductance of A6 cells, Broillet, M.C., Horisberger, J.D. 124:1
–, ionic basis of methacholine-induced shrinkage of dissociated eccrine clear cells, Suzuki, Y., Ohtsuyama, M., Samman, G., Sato, F., Sato, K. 123:33
–, osmolarity-sensitive release of free amino acids from cultured kidney cells (MDCK), Olea, R.S., Pasantes-Morales, H., Lázaro, Cereijido, M. 121:1
–, possible mechanism of ciliary stimulation by extracellular ATP: involvement of calcium-dependent potassium chan-

nels and exogenous Ca^{2+}, Weiss, T., Gheber, L., Shoshan-Barmatz, V., Priel, Z. 127:185
–, single-channel K^+ currents in *Drosophila* muscle and their pharmacological block, Gorczyca, M.G., Wu, C.F. 121:237
Quinine
–, ATP-sensitive K^+ conductance in pancreatic zymogen granules: block by glyburide and activation by diazoxide, Thévenod, F., Chathadi, K.V., Jiang, B., Hopfer, U. 129:253
Rabbit colon
–, spatial and temporal patterns of intracellular calcium in colonic smooth muscle, Mayer, E.A., Kodner, A., Sun, X.P., Wilkes, J., Scott, D., Sachs, G. 125:107
Rabbit cornea
–, regulation of a potassium-selective current in rabbit corneal epithelium by cyclic GMP, carbachol and diltiazem, Farrugia, G., Rae, J.L. 129:99
–, transient outwardly rectifying potassium channel in the rabbit corneal endothelium, Watsky, M.A., Cooper, K., Rae, J.L. 128:123
–, whole-cell potassium current in rabbit corneal epithelium activated by fenamates, Rae, J.L., Farrugia, G. 129:81
Rabbit cortical tubule
–, regulation of principal cell pH by Na/H exchange in rabbit cortical collecting tubule, Silver, R.B., Frindt, G., Palmer, L.G. 125:13
–, substrate-induced modulation of ATP turnover in dog and rabbit proximal tubules, Noël, J., Tejedor, A., Vinay, P., Laprade, R. 128:205
Rabbit gallbladder epithelium
–, nature of the neutral Na^+-Cl^- coupled entry at the apical membrane of rabbit gallbladder epithelium: IV. Na^+/H^+, Cl^-/HCO_3^- double exchange, hydrochlorothiazide-sensitive Na^+-Cl^- symport and Na^+-K^+-$2Cl^-$ cotransport are all involved, Cremaschi, D., Porta, C., Bottà, G., Meyer, G. 129:221
Rabbit gastric glands
–, K-induced alkalinization in all cell types of rabbit gastric glands: a novel K/H exchange mechanism, Hofer, A.M., Machen, T.E. 126:245
Rabbit kidney
–, a choline transporter in renal brush-border membrane vesicles: energetics and structural specificity, Wright, S.H., Wunz, T.M., Wunz, T.P. 126:51
–, activation of osmolyte efflux from cultured renal papillary epithelial cells, Furlong, T.J., Moriyama, T., Spring, K.R. 123:269
–, angiotensin II directly increases rabbit renal brush-border membrane sodium transport: presence of local signal transduction system, Morduchowicz, G.A., Sheikh-Hamad, D., Dwyer, B.E., Stern, N., Jo, O.D., Yanagawa, N. 122:43
–, effect of sulfhydryl compounds on ATP-stimulated H^+ transport and Cl^- uptake in rabbit renal cortical endosomes, Hilden, S.A., Madias, N.E. 124:139
–, inhibition of Ca-activated K^+ channels from renal microvillus membrane vesicles by amiloride analogs, Zweifach, A., Desir, G.V., Aronson, P.S., Giebisch, G. 128:115
Rabbit osteoclasts
–, inwardly rectifying potassium current in rabbit osteoclasts: a whole-cell and single-channel study, Kelly, M.E.M., Dixon, S.J., Sims, S.M. 126:171
Rabbit outer renal medullary membranes
–, Cl^- channels in basolateral renal medullary vesicles: V. comparison of basolateral mTALH Cl^- channels with apical Cl^- channels from jejunum and trachea, Winters, C.J., Reeves, W.B., Andreoli, T.E. 128:27
Rabbit small intestine
–, Cl^- channels in basolateral renal medullary vesicles: V. comparison of basolateral mTALH Cl^- channels with apical Cl^- channels from jejunum and trachea, Winters, C.J., Reeves, W.B., Andreoli, T.E. 128:27
Rana esculenta
–, effects of Ca^{2+} and other divalent cations on K^+-evoked force production of slow muscle fibers from *Rana esculenta* and *Rana pipiens*, Krippeit-Drews, P., Schmidt, H. 129:211
Rana pipiens
–, Ca^{2+}-independent form of protein kinase C may regulate Na^+ transport across frog skin, Civan, M.M., Oler, A., Peterson-Yantorno, K., George, K., O'Brien, T.G. 121:37
–, effects of Ca^{2+} and other divalent cations on K^+-evoked force production of slow muscle fibers from *Rana esculenta* and *Rana pipiens*, Krippeit-Drews, P., Schmidt, H. 129:211
–, intracellular ion concentrations in the isolated frog skin epithelium: evidence for different types of mitochondria-rich cells, Rick, R. 127:227
–, papaverine reduces the sodium permeability of the apical membrane and the potassium permeability of the basolateral membrane in isolated frog skin, Andersen, H., Nielsen, R. 126:235
–, response of chloride efflux from skeletal muscle of *Rana pipiens* to changes of temperature and membrane potential and diethylpyrocarbonate treatment, Spalding, B.C., Taber, P., Swift, J.G., Horowicz, P. 123:223
–, skeletal muscle ATP-sensitive K^+ channels recorded from sarcolemmal blebs of split fibers: ATP inhibition is reduced by magnesium and ADP, Vivaudou, M.B., Arnoult, C., Villaz, M. 122:165
–, voltage dependence of current through the Na,K-exchange pump of *Rana* oocytes, Wu, M.M., Civan, M.M. 121:23
Rapid filtration
–, analysis of kinetic data in transport studies: new insights from kinetic studies of Na^+-D-glucose cotransport in human intestinal brush-border membrane vesicles using a fast sampling, rapid filtration apparatus, Malo, C., Berteloot, A. 122:127
–, fast sampling, rapid filtration apparatus: principal characteristics and validation from studies of D-glucose transport in human jejunal brush-border membrane vesicles, Berteloot, A., Malo, C., Breton, S., Brunette, M. 122:111
Rat brain
–, anion channels from rat brain synaptosomal membranes incorporated into planar bilayers, Nomura, K., Sokabe, M. 124:53
–, depolarization exposes the voltage sensor of the sodium channels to the extracellular region, Sammar, M., Spira, G., Meiri, H. 125:1
Rat connexin40
–, molecular cloning and expression of rat connexin40, a gap junction protein expressed in vascular smooth muscle, Beyer, E.C., Reed, K.E., Westphale, E.M., Kanter, H.L., Larson, D.M. 127:69
Rat heart
–, gating properties of cardiac Na^+ channels in cell-free conditions, Kohlhardt, M. 122:11
–, Rat heart–,
responsiveness of cardiac Na^+ channels to antiarrhythmic drugs: the role of inactivation, Benz, I., Kohlhardt, M. 122:267

–, sarcolemmal calcium binding sites in heart: I. molecular origin in "gas-dissected" sarcolemma, Post, J.A., Langer, G.A. 129:49
–, the cloned cardiac Na channel α-subunit expressed in *Xenopus* oocytes show gating and blocking properties of native channels, Satin, J., Kyle, J.W., Chen, M., Rogart, R.B., Fozzard, H.A. 130:11
Rat hepatocytes
–, HCO_3^--coupled Na^+ influx is a major determinant of Na^+ turnover and Na^+/K^+ pump activity in rat hepatocytes, Fitz, J.G., Lidofsky, S.D., Weisiger, R.A., Xie, M.-H., Cochran, M., Grotmol, T., Scharschmidt, B.F. 122:1
Rat jejunum
–, Cl/HCO_3 exchange in the basolateral membrane domain of rat jejunal enterocyte, Orsenigo, M.N., Tosco, M., Faelli, A. 124:13
Rat kidney
–, characterization of BADS-binding proteins in epithelial plasma membranes, Pearce, S.F.A., Zadunaisky, J.A. 123:235
–, H^+ extrusion by an apical vacuolar-type H^+-ATPase in rat renal proximal tubules, Zimolo, Z., Montrose, M.H., Murer, H. 126:19
Rat lactotrophs
–, calcium-activated chloride conductance of lactotrophs: comparison of activation in normal and tumoral cells during thyrotropin-releasing-hormone stimulation, Sartor, P., Dufy-Barbe, L., Vacher, P., Dufy, B. 126:39
Rat liver
–, characterization by photoaffinity labeling of a steroid binding protein in rat liver plasma membrane, Ibarrola, I., Alejandro, A., Marino, A., Sancho, M.J., Macarulla, J.M., Trueba, M. 125:185
–, chloride channels in the nuclear membrane, Tabares, L., Mazzanti, M., Clapham, D.E. 123:49
–, phospholipid dependence of rat liver microsomal acyl : CoA synthetase and acyl-CoA : 1-acyl-*sn*-glycero-3-phosphocholine O-acyltransferase, Koshlukova, S.E., Momchilova-Pankova, A.B., Markovska, T.T., Koumanov, K.S. 127:113
–, response of the electrochromic dye, merocyanine 540, to membrane potential in rat liver mitochondria, Kalenak, A., McKenzie, R.J., Conover, T.E. 123:23
–, uridine transport in basolateral plasma membrane vesicles from rat liver, Ruiz-Montasell, B., Casado, F.J., Felipe, A., Pastor-Anglada, M. 128:227
Rat mast cells
–, noise of secretagogue-induced inward currents dependent on extracellular calcium in rat mast cells, Kuno, M., Kimura, M. 128:53
Rat muscle
–, effects of irreversible and reversible cholinesterase inhibitors on single acetylcholine-activated channels, Zorec, R., Scuka, M., Kordas, M. 125:41
Rat pancreas
–, analysis and use of the perforated patch technique for recording ionic currents in pancreatic β-cells, Sala, S., Parsey, R.V., Cohen, A.S., Matteson, D.R. 122:177
–, purification and characterization of the apical plasma membrane of the rat pancreatic acinar cell, Paul, E., Hurtubise, Y., LeBel, D. 127:129
Rat parotid acini
–, membrane potential modulates divalent cation entry in rat parotid acini, Mertz, L.M., Baum, B.J., Ambudkar, I.S. 126:183
Rat parotid gland
–, elevation of cytostolic $[Ca^{2+}]$ due to intracellular Ca^{2+} release retards carbachol stimulation of divalent cation entry in rat parotid gland acinar cells, Hiramatsu, Y., Baum, B.J., Ambudkar, I.S. 129:277
Rat thyroid
–, ATP activates a Ca^{2+}-dependent Cl^- current in the rat thyroid cell line, FRTL-5, Martin, S.C. 125:243
Reabsorption
–, a choline transporter in renal brush-border membrane vesicles: energetics and structural specificity, Wright, S.H., Wunz, T.M., Wunz, T.P. 126:51
–, H^+ extrusion by an apical vacuolar-type H^+-ATPase in rat renal proximal tubules, Zimolo, Z., Montrose, M.H., Murer, H. 126:19
Receptor cells
–, noninvasive recording of receptor cell action potentials and sustained currents from single taste buds maintained in the tongue: the response to mucosal NaCl and amiloride, Avenet, P., Lindemann, B. 124:33
Receptor channel
–, block of the sheep cardiac sarcoplasmic reticulum Ca^{2+}-release channel by tetra-alkyl ammonium cations, Tinker, A., Lindsay, A.R.G., Williams, A.J. 127:149
Receptor-mediated channels
–, stretch activation of the *Aplysia* S-channel, Vandorpe, D.H., Morris, C.E. 127:205
Receptors
–, epidermal growth factor receptor: elements of intracellular communication, Hernández-Sotomayor, S.M.T., Carpenter, G. 128:81
Reconstitution
–, channel reconstitution in liposomes and planar bilayers with HPLC-purified MIP26 of bovine lens, Shen, L., Shrager, P., Girsch, S.J., Donaldson, P.J., Peracchia, C. 124:21
–, phosphorylation modulates the voltage-dependence of channels reconstituted from the major intrinsic protein of lens fiber membranes, Ehring, G.R., Lagos, N., Zampighi, G.A., Hall, J.E. 126:75
–, reconstitution of channels from preparation enriched in lens gap junction protein MP70, Donaldson, P., Kistler, J. 129:155
–, reconstitution of sodium channels in large liposomes formed by the addition of acidic phospholipids and freeze-thaw sonication, Migual, V., Balbi, D., Castillo, C., Villegas, R. 129:37
–, solubilization and function al reconstitution of a chloride channel from *Torpedo californica* electroplax, Goldberg, A.F.X., Miller, C. 124:199
–, the permeability of reconstituted liposomes containing the purified lens fiber cell integral membrane proteins MP20, MP26, and MP70, Jarvis, L.J., Louis, C.F. 130:251
–, toad bladder amiloride-sensitive channels reconstituted into planar lipid bilayers, Branco, L.G.S., Varanda, W.A. 127:121
Red cells
–, a naphthyl analog of the aminostyryl pyridinium class of potentiometric membrane dyes shows consistent sensitivity in a variety of tissue, cell, and model membrane preparations, Loew, L.M., Cohen, L.B., Dix, J., Fluhler, E.N., Montana, V., Salama, G., Jian-young, W. 130:1
–, conformational changes in human red cell membrane proteins induced by sugar binding, Janoshazi, A., Kifor, G., Solomon, A.K. 123:191

–, effect of cholesterol and dipalmitoyl phosphatidylcholine enrichment on the kinetics of Na-Li exchange of human erythrocytes, Engelmann, B., Duhm, J. 122:231
–, osmotic effects of protein polymerization analysis of volume changes in sickle cell anemia red cells following deoxyhemoglobin S polymerization, Lew, V.L., Bookchin, R.M. 122:55
Redox
–, structural analogues of pyrroline 5-carboxylate specifically inhibit its uptake into cells, Mixson, A.J., Phang, J.M. 121:269
Regulatory volume decrease
–, activation of amino acid diffusion by a volume increase in cultured kidney (MDCK) cells, Roy, G., Malo, C. 130:83
–, calcium-dependent control of volume regulation in renal proximal tubule cells: I. swelling-activated Ca^{2+} entry and release, McCarty, N.A., O'Neil, R.G. 123:149
–, calcium-dependent control of volume regulation in renal proximal tubule cells: II. role of dihydropyridine-sensitive and -insensitive Ca^{2+} entry pathways, McCarty, N.A., O'Neil, R.G. 123:161
–, cell swelling activates K^+ and Cl^+ channels as well as nonselective, stretch-activated cation channels in Ehrlich ascites tumor cells, Christensen, O., Hoffmann, E.K. 129:13
–, differences in Ca^{2+}-mediation of hypotonic and Na^+-nutrient regulatory volume decrease in suspensions of jejunal enterocytes, MacLeod, R.J., Lembessis, P., Hamilton, J.R. 130:23
Regulatory volume increase
–, regulatory volume increase in Ehrlich ascites tumor cells is mediated by the 1Na : 1K : 2Cl cotransport system, Levinson, C. 126:277
–, volume-dependent regulation of sodium and potassium fluxes in cultured vascular smooth muscle cells: dependence on medium osmolality and regulation by signalling systems, Orlov, S.N., Resink, T.J., Bernhardt, J., Buhler, F.R. 129:199
Relaxation
–, membrane transport models with fast and slow reactions: general analytical solution for a single relaxation, Roy, G., Wierzbicki, W., Sauvé, R. 123:105
Resting potential
–, a TEA-insensitive flickering potassium channel active around the resting potential in myelinated nerve, Koh, D.S., Jonas, P., Bräu, M.E., Vogel, W. 130:149
–, ion flow through membranes and the resting potential of cells, Offner, F.F. 123:171
Retinal rods
–, gating of retinal rod cation channel by different nucleotides: comparative study of unitary currents, Ildefonse, M., Crouzy, S., Bennett, N. 130:91
Rhod2
–, rapid Ca^{2+} extrusion via the Na^+/Ca^{2+} exchanger of the human platelet, Valant, P.A., Adjei, P.N., Haynes, D.H. 130:63
RINm5F cells
–, activation of voltage-sensitive Ca^{2+} currents by vasopressin in an insulin-secreting cell line, Thorn, P., Petersen, O.H. 124:63
Rose Bengal
–, identification of an essential histidine residue at the active site of the tonoplast malate carrier in *Catharanthus roseus* cells, Dietz, K.J., Canut, H., Marigo, G. 129:137
Rotational diffusion
–, decreased rotational diffusion of band 3 in Melanesian ovalocytes from Papua, New Guinea, Tilley, L., Nash, G.B., Jones, G.L., Sawyer, W.H. 121:59
Rubidium ion currents
–, permeance of Cs^+ and Rb^+ through the inwardly rectifying K^+ channels in guinea pig ventricular myocytes, Mitra, R.L., Morad, M. 122:33
Ryanodine receptor
–, a calcium conducting channel akin to a calcium pump, Wang, J., Tang, J.M., Eisenberg, R.S. 130:163
–, block of the sheep cardiac sarcoplasmic reticulum Ca^{2+}-release channel by tetra-alkyl ammonium cations, Tinker, A., Lindsay, A.R.G., Williams, A.J. 127:149
–, excitation-contraction coupling in a pre-vertebrate twitch muscle: the myotomes of *Branchiostoma lanceolatum*, Benterbusch, R., Herberg, F.W., Melzer, W., Thieleczek, R. 129:237
S channels
–, spontaneous activity of the light-dependent channel irreversibly induced in excised patches from *Limulus* ventral photoreceptors, Johnson, E.C., Bacigalupo, J. 130:33
–, stretch activation of the *Aplysia* S-channel, Vandorpe, D.H., Morris, C.E. 127:205
Salivary gland
–, modulation of inwardly rectifying Na^+-K^+ channels by serotonin and cyclic nucleotides in salivary gland cells of the leech, *Haementeria*, Wuttke, W.A., Berry, M.S. 127:57
–, regulation of cytoplasmic pH in rat sublingual mucous acini at rest and during muscarinic stimulation, Zhang, G.H., Cragoe, E.J., Jr., Melvin, J.E. 129:311
Sarcolemma
–, sarcolemmal calcium binding sites in heart: I. molecular origin in "gas-dissected" sarcolemma, Post, J.A., Langer, G.A. 129:49
Sarcoplasmic reticulum
–, a calcium conducting channel akin to a calcium pump, Wang, J., Tang, J.M., Eisenberg, R.S. 130:163
–, block of the sheep cardiac sarcoplasmic reticulum Ca^{2+}-release channel by tetra-alkyl ammonium cations, Tinker, A., Lindsay, A.R.G., Williams, A.J. 127:149
–, comparison of calcium release from sarcoplasmic reticulum of slow and fast twitch muscles, Lee, Y.S., Ondrias, K., Duhl, A.J., Ehrlich, B.E., Kim, D.H. 122:155
–, depolarization-induced calcium release from isolated triads measured with impermeant fura-2, Corbett, A.M., Bian, J., Wade, J.B., Schneider, M.F. 128:165
–, sarcolemmal calcium binding sites in heart: II. mathematical model for diffusion of calcium released from the sarcoplasmic reticulum into the diadic region, Peskoff, A., Post, J.A., Langer, G.A. 129:59
–, spatial and temporal patterns of intracellular calcium in colonic smooth muscle, Mayer, E.A., Kodner, A., Sun, X.P., Wilkes, J., Scott, D., Sachs, G. 125:107
SBFI
–, HCO_3^--coupled Na^+ influx is a major determinant of Na^+ turnover and Na^+/K^+ pump activity in rat hepatocytes, Fitz, J.G., Lidofsky, S.D., Weisiger, R.A., Xie, M.-H., Cochran, M., Grotmol, T., Scharschmidt, B.F. 122:1
SCH28080
–, K-induced alkalinization in all cell types of rabbit gastric glands: a novel K/H exchange mechanism, Hofer, A.M., Machen, T.E. 126:245

Schistocerca gregaria
–, electrogenic proton secretion in the hindgut of the desert locust, *Schistocerca gregaria*, Thomson, R.B., Phillips, J.E. 125:133
Secretion
–, lipopolysaccharide induction of outward potassium current expression in human monocyte-derived macrophages: lack of correlation with secretion, Nelson, D.J., Jow, B., Jow, F. 125:207
Secretory granules
–, calcium release and internal calcium regulation in acinar cells of exocrine glands, Marty, A. 124:189
Sensory cells
–, noninvasive recording of receptor cell action potentials and sustained currents from single taste buds maintained in the tongue: the response to mucosal NaCl and amiloride, Avenet, P., Lindemann, B. 124:33
Serine transport
–, sodium-dependent L-serine transport in plasma membrane vesicles isolated from Ehrlich cells by two-phase compartmentation, Luque, P., Márquez, J., Núñez, I., Medina, M.A. 123:247
Serotonin
–, modulation of inwardly rectifying Na^+-K^+ channels by serotonin and cyclic nucleotides in salivary gland cells of the leech, *Haementeria*, Wuttke, W.A., Berry, M.S. 127:57
Serum
–, serum independence of low K^+ induction of Na,K-ATPase: possible role of *c-fos*, Cayanis, E., Russo, J.J., Wu, Y., Edlman, I.S. 125:163
Shark rectal gland
–, characterization of BADS-binding proteins in epithelial plasma membranes, Pearce, S.F.A., Zadunaisky, J.A. 123:235
–, properties of single- and double-barreled Cl channels of shark rectal gland in planar bilayers, Sansom, S.C., Carosi, S.L. 126:67
Sheep aorta
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. I. effects of caffeine on intracellular Ca^{2+} stores, Thuringer, D., Sauvé 130: 125
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. II. effects of thapsigargin on the cellular Ca^{2+} homeostasis, Thuringer, D., Sauvé, R. 130:139
Sheep erythrocytes
–, kinetics of DIDS inhibition of swelling-activated K-Cl cotransport in low K sheep erythrocytes, Delpire, E., Lauf, P.K. 126:89
Sheep trachea
–, Cl^- channels in basolateral renal medullary vesicles: V. comparison of basolateral mTALH Cl^- channels with apical Cl^- channels from jejunum and trachea, Winters, C.J., Reeves, W.B., Andreoli, T.E. 128:27
Short circuit method
–, rapid Ca^{2+} extrusion via the Na^+/Ca^{2+} exchanger of the human platelet, Valant, P.A., Adjei, P.N., Haynes, D.H. 130:63
Sickle cells
–, osmotic effects of protein polymerization analysis of volume changes in sickle cell anemia red cells following deoxyhemoglobin S polymerization, Lew, V.L., Bookchin, R.M. 122:55
Signal transduction
–, ion channel gating in plants: physiological implications and integration for stomatal function, Blatt, M.R. 124:95
Single channel conductance
–, dimerization constant and single-channel conductance of gramicidin in thylakoid membranes, Schönknecht, G., Althoff, G., Junge, W. 126:265
Single channel currents
–, activation of voltage-sensitive Ca^{2+} currents by vasopressin in an insulin-secreting cell line, Thorn, P., Petersen, O.H. 124:63
–, subunit requirements for *Torpedo* AChR channel expression: a specific role for the δ-subunit in voltage-dependent gating, Golino, M.D., Hamill, O.P. 129:297
–, whole-cell and single-channel currents across the plasmalemma of corn shoot suspension cells, Fairley, K., Laver, D., Walker, N.A. 121:11
Single channel inhibition
–, inhibition of inward rectifying tonoplast channels by a vacuolar factor: physiological and kinetic implications, Maathuis, F.J.M., Prins, B.A. 122:251
Single channel recording
–, channel reconstitution in liposomes and planar bilayers with HPLC-purified MIP26 of bovine lens, Shen, L., Shrager, P., Girsch, S.J., Donaldson, P.J., Peracchia, C. 124:21
Single channels
–, background calcium permeable channels in glomerulosa cells from adrenal gland, Durroux, T., Gallo-Payet, N., Bilodeau, L., Payet, M.D. 129:145
–, gating of retinal rod cation channel by different nucleotides: comparative study of unitary currents, Ildefonse, M., Crouzy, S., Bennett, N. 130:91
–, liquid junction potentials and small cell effects in patch-clamp analysis, Barry, P.H., Lynch, J.W. 121:101
–, single-channel study of the cGMP-dependent conductance of retinal rods from incorporation of native vesicles into planar lipid bilayers, Ildefonse, M., Bennett, N. 123:133
Single membrane permeability
–, single-membrane and cell-to-cell permeability properties of dissociated embryonic chick lens cells, Miller, A.G., Zampighi, G.A., Hall, J.E. 128:91
SITS
–, nature of the neutral Na^+-Cl^- coupled entry at the apical membrane of rabbit gallbladder epithelium: IV. Na^+/H^+, Cl^-/HCO_3^- double exchange, hydrochlorothiazide-sensitive Na^+-Cl^- symport and Na^+-K^+-$2Cl^-$ cotransport are all involved, Cremaschi, D., Porta, C., Bottà, G., Meyer, G. 129:221
Skeletal muscle
–, activation of skeletal muscle nicotinic acetylcholine receptors, Lingle, C.J., Maconochie, D., Steinbach, J.H. 126: 195
–, depolarization-induced calcium release from isolated triads measured with impermeant fura-2, Corbett, A.M., Bian, J., Wade, J.B., Schneider, M.F. 128:165
–, heterologous expression of calcium channels, Nargeot, J., Dascal, N., Lester, H.A. 126:97
–, localization of epitopes for antibodies that differentially label sodium channels in skeletal muscle surface and T-tubular membranes, Cohen S.A., Barchi, R.L. 128:219
–, mapping of the calpain proteolysis products of the junctional foot protein of the skeletal muscle triad junction, Brandt, N.R., Caswell, A.H., Brandt, T., Brew, K., Mellgren, R.L. 127:35

–, response of chloride efflux from skeletal muscle of *Rana pipiens* to changes of temperature and membrane potential and diethylpyrocarbonate treatment, Spalding, B.C., Taber, P., Swift, J.G., Horowicz, P. 123:223
–, sulfhydryl alkylating agents induce calcium current in skeletal muscle fibers of a crustacean (*Atya lanipes*), Lizardi, L., Garcia, M.C., Sanchez, J.A., Zuazaga, C. 129:167
Slow twitch muscle
–, comparison of calcium release from sarcoplasmic reticulum of slow and fast twitch muscles, Lee, Y.S., Ondrias, K., Duhl, A.J., Ehrlich, B.E., Kim, D.H. 122:155
Small cell effect
–, liquid junction potentials and small cell effects in patch-clamp analysis, Barry, P.H., Lynch, J.W. 121:101
Smg proteins
–, association of a 19- and a 21-kDa GTP-binding protein to pancreatic microsomal vesicles is regulated by the intravesicular pH established by a vacuolar-type H^+-ATPase, Zeuzem, S., Zimmermann, P., Schulz, I. 125:231
Sodium absorption
–, localization of sodium absorption and chloride secretion in an intestinal epithelium, Holtug, K., Shipley, A., Datzer, V., Sten-Knudsen, O., Skadhauge, E. 122:215
Sodium channels
–, depolarization exposes the voltage sensor of the sodium channels to the extracellular region, Sammar, M., Spira, G., Meiri, H. 125:1
–, involvement of different S_4 parts in the voltage dependency of Na channel gating, Kra-Oz, Z., Spira, G., Palti, Y., Meiri, H. 129:189
–, localization of epitopes for antibodies that differentially label sodium channels in skeletal muscle surface and T-tubular membranes, Cohen S.A., Barchi, R.L. 128:219
–, monoclonal antibodies raised against post-translational domains of the electroplax sodium channel, Ivey, S., Thornhill, W.B., Levinson, S.R. 121:215
–, the cloned cardiac Na channel α-subunit expressed in *Xenopus* oocytes show gating and blocking properties of native channels, Satin, J., Kyle, J.W., Chen, M., Rogart, R.B., Fozzard, H.A. 130:11
–, tissue-specific expression of the voltage-sensitive sodium channel, Mandel, G. 125:193
Sodium flux
–, volume-dependent regulation of sodium and potassium fluxes in cultured vascular smooth muscle cells: dependence on medium osmolality and regulation by signalling systems, Orlov, S.N., Resink, T.J., Bernhardt, J., Buhler, F.R. 129:199
Sodium ion channels
–, gating properties of cardiac Na^+ channels in cell-free conditions, Kohlhardt, M. 122:11
–, Na^+ channel activity in cultured renal (A6) epithelium: regulation by solution osmolarity, Wills, N.K., Millinoff, L.P., Crowe, W.E. 121:79
–, opposite effects of angiotensin II and the protein kinase C activator OAG on cardiac Na^+ channels, Benz, I., Herzig, J.W., Kohlhardt, M. 130:183
–, reconstitution of sodium channels in large liposomes formed by the addition of acidic phospholipids and freeze-thaw sonication, Migual, V., Balbi, D., Castillo, C., Villegas, R. 129:37
–, responsiveness of cardiac Na^+ channels to antiarrhythmic drugs: the role of inactivation, Benz, I., Kohlhardt, M. 122:267
–, slow inactivation of tetrodotoxin-insensitive Na^+ channels in neurons of rat dorsal root ganglia, Ogata, N., Tatebayashi, H. 129:71
–, urinary proteases degrade epithelial sodium channels, Lewis, S.A., Clausen, C. 122:77
Sodium ion currents
–, role voltage-dependent ionic currents in coupling glucose stimulation to insulin secretion in canine pancreatic islet B-cells, Pressel, D.M., Misler, S. 124:239
Sodium ion flux
–, HCO_3^--coupled Na^+ influx is a major determinant of Na^+ turnover and Na^+/K^+ pump activity in rat hepatocytes, Fitz, J.G., Lidofsky, S.D., Weisiger, R.A., Xie, M.-H., Cochran, M., Grotmol, T., Scharschmidt, B.F. 122:1
Sodium ion inactivation
–, gating properties of cardiac Na^+ channels in cell-free conditions, Kohlhardt, M. 122:11
–, responsiveness of cardiac Na^+ channels to antiarrhythmic drugs: the role of inactivation, Benz, I., Kohlhardt, M. 122:267
Sodium ion transport
–, Ca^{2+}-independent form of protein kinase C may regulate Na^+ transport across frog skin, Civan, M.M., Oler, A., Peterson-Yantorno, K., George, K., O'Brien, T.G. 121:37
–, Na^+ transport and impedance properties of cultured renal (A6 and 2F3) epithelia, Wills, N.K., Purcell, R.K., Clausen, C. 125:273
Sodium ions
–, H^+ extrusion by an apical vacuolar-type H^+-ATPase in rat renal proximal tubules, Zimolo, Z., Montrose, M.H., Murer, H. 126:19
–, sodium-calcium exchange in renal epithelial cells: dependence on cell sodium and competitive inhibition by magnesium, Lyu, R.M., Smith, L., Smith, J.B. 124:73
Sodium transport
–, cation transport in vascular endothelial cells and aging, Adragna, N.C. 124:285
–, intracellular potassium activity in mammalian proximal tubule: effect of perturbations in transepithelial sodium transport, Laprade, R., Lapointe, J.Y., Breton, S., Duplain, M., Cardinal, J. 121:249
–, regulation of principal cell pH by Na/H exchange in rabbit cortical collecting tubule, Silver, R.B., Frindt, G., Palmer, L.G. 125:13
Sodium uptake
–, reconstitution of sodium channels in large liposomes formed by the addition of acidic phospholipids and freeze-thaw sonication, Migual, V., Balbi, D., Castillo, C., Villegas, R. 129:37
Sorbitol
–, activation of osmolyte efflux from cultured renal papillary epithelial cells, Furlong, T.J., Moriyama, T., Spring, K.R. 123:269
Spatial distribution
–, spatial and temporal patterns of intracellular calcium in colonic smooth muscle, Mayer, E.A., Kodner, A., Sun, X.P., Wilkes, J., Scott, D., Sachs, G. 125:107
Split fiber blebs
–, skeletal muscle ATP-sensitive K^+ channels recorded from sarcolemmal blebs of split fibers: ATP inhibition is reduced by magnesium and ADP, Vivaudou, M.B., Arnoult, C., Villaz, M. 122:165
Spontaneous channel activity
–, spontaneous activity of the light-dependent channel irre-

versibly induced in excised patches from *Limulus* ventral photoreceptors, Johnson, E.C., Bacigalupo, J. 130:33
Squid giant axon
–, a naphthyl analog of the aminostyryl pyridinium class of potentiometric membrane dyes shows consistent sensitivity in a variety of tissue, cell, and model membrane preparations, Loew, L.M., Cohen, L.B., Dix, J., Fluhler, E.N., Montana, V., Salama, G., Jian-young, W. 130:1
Steady-state kinetics
–, electrogenic properties of the cloned Na^+/glucose cotransporter: I. voltage-clamp studies, Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M. 125:49
Steroids
–, characterization by photoaffinity labeling of a steroid binding protein in rat liver plasma membrane, Ibarrola, I., Alejandro, A., Marino, A., Sancho, M.J., Macarulla, J.M., Trueba, M. 125:185
Stilbene
–, characterization of BADS-binding proteins in epithelial plasma membranes, Pearce, S.F.A., Zadunaisky, J.A. 123:235
Stilbene disulfonates
–, role of Lys 558 and Lys 869 in substrate and inhibitor binding to the murine band 3 protein: a study of the effects of site-directed mutagenesis of the band 3 protein expressed in the oocytes of *Xenopus laevis*, Wood, P.G., Müller, H., Sovak, M., Passow, H. 127:139
Stilbene inhibition
–, kinetics of DIDS inhibition of swelling-activated K-Cl cotransport in low K sheep erythrocytes, Delpire, E., Lauf, P.K. 126:89
Stimulus-secretion coupling
–, noise of secretagogue-induced inward currents dependent on extracellular calcium in rat mast cells, Kuno, M., Kimura, M. 128:53
–, role voltage-dependent ionic currents in coupling glucose stimulation to insulin secretion in canine pancreatic islet B-cells, Pressel, D.M., Misler, S. 124:239
Stomatal guard cells
–, ion channel gating in plants: physiological implications and integration for stomatal function, Blatt, M.R. 124:95
–, membrane transport in stomatal guard cells: the importance of voltage control, Thiel, G., MacRobbie, E.A.C., Blatt, M.R. 126:1
Stretch activation
–, cell swelling activates K^+ and Cl^+ channels as well as nonselective, stretch-activated cation channels in Ehrlich ascites tumor cells, Christensen, O., Hoffmann, E.K. 129:13
–, single-channel K^+ currents in *Drosophila* muscle and their pharmacological block, Gorczyca, M.G., Wu, C.F. 121:237
–, stretch activation of the *Aplysia* S-channel, Vandorpe, D.H., Morris, C.E. 127:205
Strophanthidin
–, voltage dependence of current through the Na,K-exchange pump of *Rana* oocytes, Wu, M.M., Civan, M.M. 121:23
Structure-activity relationship
–, dimensions of the ion channel in neuronal nicotinic acetylcholine receptor as estimated from analysis of conformation-activity relationships of open-channel blocking drugs, Zhorov, B.S., Brovtsyna, N.B., Gmiro, V.E., Lukomskaya, N.Y., Serdyuk, S.E., Potapyeva, N.N., Magazanik, L.G., Kurenniy, D.E., Skok, V.I. 121:119
Structure-function relationship
–, activation of skeletal muscle nicotinic acetylcholine receptors, Lingle, C.J., Maconochie, D., Steinbach, J.H. 126:195
Subconductance
–, anion and cation permeability of a large conductance anion channel in the T84 human colonic cell line, Vaca, L., Kunze, D.L. 130:241
–, model ion channels: gramicidin and alamethicin, Woolley, G.A., Wallace, B.A. 129:109
Subsarcolemmal space
–, sarcolemmal calcium binding sites in heart: II. mathematical model for diffusion of calcium released from the sarcoplasmic reticulum into the diadic region, Peskoff, A., Post, J.A., Langer, G.A. 129:59
Substrate specificity mutations
–, dissecting the molecular mechanism of ion-solute cotransport: substrate specificity mutations in the *putP* gene affect the kinetics of proline transport, Myers, R.S., Townsend, D., Maloy, S. 121:201
Subunit function
–, subunit requirements for *Torpedo* AChR channel expression: a specific role for the δ-subunit in voltage-dependent gating, Golino, M.D., Hamill, O.P. 129:297
Sulfhydryl compounds
–, effect of sulfhydryl compounds on ATP-stimulated H^+ transport and Cl^- uptake in rabbit renal cortical endosomes, Hilden, S.A., Madias, N.E. 124:139
–, sulfhydryl alkylating agents induce calcium current in skeletal muscle fibers of a crustacean (*Atya lanipes*), Lizardi, L., Garcia, M.C., Sanchez, J.A., Zuazaga, C. 129:167
Sulfo-*N*-succinimidyl fatty acids
–, labeling of adipocyte membranes by sulfo-*N*-succinimidyl derivatives of long-chain fatty acids: inhibition of fatty acid transport, Harmon, C.M., Luce, P., Beth, A.H., Abumrad, N.A. 121:261
Sulfonylureas
–, ATP-sensitive K^+ conductance in pancreatic zymogen granules: block by glyburide and activation by diazoxide, Thévenod, F., Chathadi, K.V., Jiang, B., Hopfer, U. 129:253
Sweat duct
–, cAMP activation of CF-affected Cl^- conductance in both cell membranes of an absorptive epithelium, Reddy, M.M., Quinton, P.M. 130:49
Sympathetic neurons
–, activation of K^+ channels by lanthanum contributes to the block of transmitter release in chick and rat sympathetic neurons, Przywara, D.A., Bhave, S.V., Bhave, A., Chowdhury, P.S., Wakade, T.D., Wakade, A.R. 125:155
Symport
–, HCO_3^--coupled Na^+ influx is a major determinant of Na^+ turnover and Na^+/K^+ pump activity in rat hepatocytes, Fitz, J.G., Lidofsky, S.D., Weisiger, R.A., Xie, M.-H., Cochran, M., Grotmol, T., Scharschmidt, B.F. 122:1
Synaptic transmission
–, activation of skeletal muscle nicotinic acetylcholine receptors, Lingle, C.J., Maconochie, D., Steinbach, J.H. 126:195
Synaptosomal membranes
–, anion channels from rat brain synaptosomal membranes incorporated into planar bilayers, Nomura, K., Sokabe, M. 124:53
Synaptosomes
–, quantitative analysis of depolarization-induced ATP release from mouse brain synaptosomes: external calcium dependent and independent processes, Fiedler, J.L., Pollard, H.B., Rojas, E. 127:21
Synthetic lipid bilayers
–, interaction of eosinophil granule major basic protein with

synthetic lipid bilayers: a mechanism for toxicity, Abu-Ghazaleh, R.I., Gleich, G.J., Prendergast, F.G. 128:153
Synthetic peptides
–, involvement of different S_4 parts in the voltage dependency of Na channel gating, Kra-Oz, Z., Spira, G., Palti, Y., Meiri, H. 129:189
System $B^{0,+}$ transporter
–, transport and membrane binding of the glutamine analogue 6-diazo-5-oxo-L-norleucine (DON) in *Xenopus laevis* oocytes, Taylor, P.M., Mackenzie, B., Hundal, H.S., Robertson, E., Rennie, M.J. 128:181
T84 cell line
–, anion and cation permeability of a large conductance anion channel in the T84 human colonic cell line, Vaca, L., Kunze, D.L. 130:241
T lymphoblasts
–, calcium influx and intracellular calcium release in anti-CD3 antibody-stimulated and thapsigargin-treated human T lymphoblasts, Sarkadi, B., Tordai, A., Homolya, L., Scharff, O., Gárdos, G. 123:9
–, Cl^- channels in intact human T lymphocytes, Pahapill, P.A., Schlichter, L.C. 125:171
T-tubular membrane
–, localization of epitopes for antibodies that differentially label sodium channels in skeletal muscle surface and T-tubular membranes, Cohen S.A., Barchi, R.L. 128:219
Targeting signals
–, targeting of proteins into the peroxisomal matrix, Subramani, S. 125:99
Taste
–, Ca^{2+}-dependent chloride conductance in *Necturus* taste cells, McBride, D.W., Jr., Roper, S.D. 124:85
–, noninvasive recording of receptor cell action potentials and sustained currents from single taste buds maintained in the tongue: the response to mucosal NaCl and amiloride, Avenet, P., Lindemann, B. 124:33
Taurine
–, osmolarity-sensitive release of free amino acids from cultured kidney cells (MDCK), Olea, R.S., Pasantes-Morales, H., Lázaro, Cereijido, M. 121:1
Teleost fish
–, actions of cadmium on basolateral plasma membrane proteins involved in calcium uptake by fish intestine, Schoenmakers, T.J.M., Klaren, P.H.M., Flik, G., Lock, R.A.C., Pang, P.K.T., Bonga, S.E.W. 127:161
Temperature dependence
–, response of chloride efflux from skeletal muscle of *Rana pipiens* to changes of temperature and membrane potential and diethylpyrocarbonate treatment, Spalding, B.C., Taber, P., Swift, J.G., Horowicz, P. 123:223
Tetraalkylammonium cations
–, block of the sheep cardiac sarcoplasmic reticulum Ca^{2+}-release channel by tetra-alkyl ammonium cations, Tinker, A., Lindsay, A.R.G., Williams, A.J. 127:149
–, mechanism of asymmetric block of K channels by tetraalkylammonium ions in mouse neuroblastoma cells, Im, M.B., Quandt, F.N. 130:115
Tetraethylammonium
–, mechanism of asymmetric block of K channels by tetraalkylammonium ions in mouse neuroblastoma cells, Im, M.B., Quandt, F.N. 130:115
–, single-channel K^+ currents in *Drosophila* muscle and their pharmacological block, Gorczyca, M.G., Wu, C.F. 121:237
Tetraethylammonium transport
–, a choline transporter in renal brush-border membrane vesicles: energetics and structural specificity, Wright, S.H., Wunz, T.M., Wunz, T.P. 126:51
[^{3}H]-Tetraphenylphosphonium binding
–, effects of inhibitors of ion-motive ATPases on the plasma membrane potential of murine erythroleukemia cells, Arcangeli, A., Del Bene, M.R., Becchetti, A., Wanke, E., Olivotto, M. 126:123
Tetrodotoxin
–, reconstitution of sodium channels in large liposomes formed by the addition of acidic phospholipids and freeze-thaw sonication, Migual, V., Balbi, D., Castillo, C., Villegas, R. 129:37
–, slow inactivation of tetrodotoxin-insensitive Na^+ channels in neurons of rat dorsal root ganglia, Ogata, N., Tatebayashi, H. 129:71
–, the cloned cardiac Na channel α-subunit expressed in *Xenopus* oocytes show gating and blocking properties of native channels, Satin, J., Kyle, J.W., Chen, M., Rogart, R.B., Fozzard, H.A. 130:11
Thallium transport
–, anion-dependent transport of thallous ions through human erythrocyte membrane, Skulskii, I.A., Gusev, G.P., Sherstobitov, A.O., Manninen, V. 130:219
Thapsigargin
–, a patch-clamp study of the Ca^{2+} mobilization from internal stores in bovine aortic endothelial cells. II. effects of thapsigargin on the cellular Ca^{2+} homeostasis, Thuringer, D., Sauvé, R. 130:139
–, calcium influx and intracellular calcium release in anti-CD3 antibody-stimulated and thapsigargin-treated human T lymphoblasts, Sarkadi, B., Tordai, A., Homolya, L., Scharff, O., Gárdos, G. 123:9
Theophylline
–, effects of the anesthetics heptanol, halothane and isoflurane on gap junction conductance in crayfish septate axons: a calcium- and hydrogen-independent phenomenon potentiated by caffeine and theophylline, and inhibited by 4-aminopyridine, Peracchia, C. 121:67
Thermodynamics
–, the structure and function of membranes—a personal memoir, Singer, S J. 129:3
Thermogenin
–, inner mitochondrial membrane anion channel is present in brown adipocytes but is not identical with the uncoupling protein, Klitsch, T., Siemen, D. 122:69
Thick ascending limb
–, Cl^- channels in basolateral renal medullary membrane vesicles: IV. analogous channel activation by Cl^- or cAMP-dependent protein kinase, Winters, C.J., Reeves, W.B., Andreoli, T.E. 122:89
Threshold analysis
–, modification of gating of an airway epithelial chloride channel by 5-nitro-2-(3-phenylpropylamino)benzoic acid (NPPB), Alton, E.W.F.W., Williams, A.J. 128:141
Thylakoids
–, dimerization constant and single-channel conductance of gramicidin in thylakoid membranes, Schönknecht, G., Althoff, G., Junge, W. 126:265
Thyrotropin-releasing-hormone stimulation
–, calcium-activated chloride conductance of lactotrophs: comparison of activation in normal and tumoral cells during thyrotropin-releasing-hormone stimulation, Sartor, P., Dufy-Barbe, L., Vacher, P., Dufy, B. 126:39
Tight junctions
–, assembly and sealing of tight junctions: possible participa-

tion of G-proteins, phospholipase C, protein kinase C and calmodulin, Balda, M.S., González-Mariscal, L., Contreras, R.G., Macias-Silva, M., Toress-Marquez, M.E., Sáinz, J.A.G., Cereijido, M. 122:193

Toad bladder
–, effects of potassium-free media and ouabain on epithelial cell composition in toad urinary bladder studied with x-ray microanalysis, Bowler, J.M., Purves, R.D., Macknight, D.C. 123:115
–, toad bladder amiloride-sensitive channels reconstituted into planar lipid bilayers, Branco, L.G.S., Varanda, W.A. 127:121

Tonoplasts
–, cytoplasmic chloride regulates cation channels in the vacuolar membrane of plant cells, Pantoja, O., Dainty, J., Blumwald, E. 125:219
–, identification of an essential histidine residue at the active site of the tonoplast malate carrier in *Catharanthus roseus* cells, Dietz, K.J., Canut, H., Marigo, G. 129:137
–, inhibition of inward rectifying tonoplast channels by a vacuolar factor: physiological and kinetic implications, Maathuis, F.J.M., Prins, B.A. 122:251
–, partial purification of a potassium channel with low permeability for sodium from tonoplast membranes of *Hordeum vulgare* cv. gerbel, Klughammer, B., Betz, M., Benz, R., Dietz, K.J. 128:17

Torpedo californica electroplax
–, regulation of endogenous and expressed Na^+/K^+ pumps in *Xenopus* oocytes by membrane potential and stimulation of protein kinases, Vasilets, L.A., Schwarz, W. 125:119
–, solubilization and function al reconstitution of a chloride channel from *Torpedo californica* electroplax, Goldberg, A.F.X., Miller, C. 124:199

Torpedo subunits
–, subunit requirements for *Torpedo* AChR channel expression: a specific role for the δ-subunit in voltage-dependent gating, Golino, M.D., Hamill, O.P. 129:297

Toxicity
–, interaction of eosinophil granule major basic protein with synthetic lipid bilayers: a mechanism for toxicity, Abu-Ghazaleh, R.I., Gleich, G.J., Prendergast, F.G. 128:153

TPA
–, Ca^{2+}-independent form of protein kinase C may regulate Na^+ transport across frog skin, Civan, M.M., Oler, A., Peterson-Yantorno, K., George, K., O'Brien, T.G. 121:37

Tracheal epithelium
–, modification of gating of an airway epithelial chloride channel by 5-nitro-2-(3-phenylpropylamino)benzoic acid (NPPB), Alton, E.W.F.W., Williams, A.J. 128:141

Transcytosis
–, molecular and cellular mechanisms involved in transepithelial transport, Schaerer, E., Neutra, M.R., Kraehenbuhl, J.-P. 123:93

Transepithelial electrical resistance
–, assembly and sealing of tight junctions: possible participation of G-proteins, phospholipase C, protein kinase C and calmodulin, Balda, M.S., González-Mariscal, L., Contreras, R.G., Macias-Silva, M., Toress-Marquez, M.E., Sáinz, J.A.G., Cereijido, M. 122:193

Transepithelial sodium transport
–, intracellular ion concentrations in the isolated frog skin epithelium: evidence for different types of mitochondria-rich cells, Rick, R. 127:227
–, intracellular potassium activity in mammalian proximal tubule: effect of perturbations in transepithelial sodium transport, Laprade, R., Lapointe, J.Y., Breton, S., Duplain, M., Cardinal, J. 121:249
–, molecular and cellular mechanisms involved in transepithelial transport, Schaerer, E., Neutra, M.R., Kraehenbuhl, J.-P. 123:93

Transformed cells
–, incorporation of the gene for a cell-cell channel protein into transformed cells leads to normalization of growth, Mehta, P.P., Hotz-Wagenblatt, A., Rose, B., Shalloway, D., Loewenstein, W.R. 124:207

Transport carriers
–, structural analogues of pyrroline 5-carboxylate specifically inhibit its uptake into cells, Mixson, A.J., Phang, J.M. 121:269

Transport control
–, ion channel gating in plants: physiological implications and integration for stomatal function, Blatt, M.R. 124:95

Transport kinetics
–, analysis of kinetic data in transport studies: new insights from kinetic studies of Na^+-D-glucose cotransport in human intestinal brush-border membrane vesicles using a fast sampling, rapid filtration apparatus, Malo, C., Berteloot, A. 122:127
–, fast sampling, rapid filtration apparatus: principal characteristics and validation from studies of D-glucose transport in human jejunal brush-border membrane vesicles, Berteloot, A., Malo, C., Breton, S., Brunette, M. 122:111

Transport model
–, membrane transport models with fast and slow reactions: general analytical solution for a single relaxation, Roy, G., Wierzbicki, W., Sauvé, R. 123:105

Triad junction
–, mapping of the calpain proteolysis products of the junctional foot protein of the skeletal muscle triad junction, Brandt, N.R., Caswell, A.H., Brandt, T., Brew, K., Mellgren, R.L. 127:35

Triads
–, depolarization-induced calcium release from isolated triads measured with impermeant fura-2, Corbett, A.M., Bian, J., Wade, J.B., Schneider, M.F. 128:165

Tumor cells
–, membrane transport properties of L-2,4-diaminobutyrate revisited, Christensen, H.N., Ronquist, G. 127:1

Tumor necrosis factor
–, lipopolysaccharide induction of outward potassium current expression in human monocyte-derived macrophages: lack of correlation with secretion, Nelson, D.J., Jow, B., Jow, F. 125:207
–, tumor necrosis factor inhibits K^+ current expression in cultured oligodendrocytes, Soliven, B., Szuchet, S., Nelson, D.J. 124:127

Two-phase compartmentation
–, sodium-dependent L-serine transport in plasma membrane vesicles isolated from Ehrlich cells by two-phase compartmentation, Luque, P., Márquez, J., Núñez, I., Medina, M.A. 123:247

Tyrosine
–, epidermal growth factor receptor: elements of intracellular communication, Hernández-Sotomayor, S.M.T., Carpenter, G. 128:81

Ubiquinone
–, on coenzyme Q orientation in membranes: a linear dichro-

ism study of ubiquinones in a model bilayer, Samorì, B., Lenaz, G., Battino, M., Marconi, G., Domini, I. 128:193
Uncoupling protein
–, inner mitochondrial membrane anion channel is present in brown adipocytes but is not identical with the uncoupling protein, Klitsch, T., Siemen, D. 122:69
Uridine
–, uridine transport in basolateral plasma membrane vesicles from rat liver, Ruiz-Montasell, B., Casado, F.J., Felipe, A., Pastor-Anglada, M. 128:227
Valinomycin
–, factors affecting chloride conductance in apical membrane vesicles from human placenta, Faller, D., Ryan, M.P. 130:227
Vanadate
–, effects of inhibitors of ion-motive ATPases on the plasma membrane potential of murine erythroleukemia cells, Arcangeli, A., Del Bene, M.R., Becchetti, A., Wanke, E., Olivotto, M. 126:123
Vascular smooth muscle
–, molecular cloning and expression of rat connexin40, a gap junction protein expressed in vascular smooth muscle, Beyer, E.C., Reed, K.E., Westphale, E.M., Kanter, H.L., Larson, D.M. 127:69
–, volume-dependent regulation of sodium and potassium fluxes in cultured vascular smooth muscle cells: dependence on medium osmolality and regulation by signalling systems, Orlov, S.N., Resink, T.J., Bernhardt, J., Buhler, F.R. 129:199
Vasopressin
–, activation of voltage-sensitive Ca^{2+} currents by vasopressin in an insulin-secreting cell line, Thorn, P., Petersen, O.H. 124:63
–, Na^+/H^+-exchange in A6 cells: polarity and vasopressin regulation, Casavola, V., Guerra, L., Helmle-Kolb, C., Reshkin, S.J., Murer, H. 130:105
Verapamil
–, calcium-dependent control of volume regulation in renal proximal tubule cells: II. role of dihydropyridine-sensitive and -insensitive Ca^{2+} entry pathways, McCarty, N.A., O'Neil, R.G. 123:161
Vesicles
–, effects of osmotic stress on mast cell vesicles of the beige mouse, Brodwick, M.S., Curran, M., Edwards, C. 126:159
Vesicular stomatitis virus
–, evidence that plasma membrane electrical potential is required for vesicular stomatitis virus infection of MDCK cells: a study using fluorescence measurements through polycarbonate supports, Akeson, M., Scharff, J., Sharp, C.M., Neville, D.M., Jr. 125:81
Vesicular transport
–, ion fluxes in *Acetabularia*: Vesicular shuttle, Mummert, H., Gradmann, D. 124:255
Vibrating microprobe
–, localization of sodium absorption and chloride secretion in an intestinal epithelium, Holtug, K., Shipley, A., Datzer, V., Sten-Knudsen, O., Skadhauge, E. 122:215
Vicia faba
–, permeation of Ca^{2+} through K^+ channels in the plasma membrane of *Vicia faba* guard cells, Fairley-Grenot, K.A., Assmann, S.M. 128:103
Villus
–, localization of sodium absorption and chloride secretion in an intestinal epithelium, Holtug, K., Shipley, A., Datzer, V., Sten-Knudsen, O., Skadhauge, E. 122:215
Viral envelope proteins
–, membrane destabilization by N-terminal peptides of viral envelope proteins, Düzgüneş, N., Shavnin, S.A. 128:71
Voltage-activated K channel
–, cyclic GMP regulation of a voltage-activated K channel in dissociated enterocytes, O'Grady, S.M., Cooper, K.E., Rae, J.L. 124:159
Voltage clamp
–, electrogenic properties of the cloned Na^+/glucose cotransporter: I. voltage-clamp studies, Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M. 125:49
Voltage dependence
–, a negative slope in the current-voltage relationship of the Na^+/K^+ pump in *Xenopus* oocytes produced by reduction in external $[K^+]$, Rakowski, R.F., Vasilets, L.A., LaTona, J., Schwarz, W. 121:177
–, anion channels from rat brain synaptosomal membranes incorporated into planar bilayers, Nomura, K., Sokabe, M. 124:53
–, *Chara* plasmalemma at high pH: voltage dependence of the conductance at rest and during excitation, Beilby, M.J., Bisson, M.A. 125:25
–, Cl^- channels in intact human T lymphocytes, Pahapill, P.A., Schlichter, L.C. 125:171
–, involvement of different S_4 parts in the voltage dependency of Na channel gating, Kra-Oz, Z., Spira, G., Palti, Y., Meiri, H. 129:189
–, multiple-channel conductance states and voltage regulation of embryonic chick cardiac gap junctions, Chen, Y., DeHaan, R.L. 127:95
–, regulation of endogenous and expressed Na^+/K^+ pumps in *Xenopus* oocytes by membrane potential and stimulation of protein kinases, Vasilets, L.A., Schwarz, W. 125:119
Voltage-dependent anion-selective channels (VDAC)
–, patch clamping VDAC in liposomes containing whole mitochondrial membranes, Wunder, U.R., Colombini, M. 123:83
Voltage-dependent channels
–, heterologous expression of calcium channels, Nargeot, J., Dascal, N., Lester, H.A. 126:97
–, phosphorylation modulates the voltage-dependence of channels reconstituted from the major intrinsic protein of lens fiber membranes, Ehring, G.R., Lagos, N., Zampighi, G.A., Hall, J.E. 126:75
Voltage-dependent currents
–, hyperosmotic media inhibit voltage-dependent calcium influx and peptide release in *Aplysia* neurons, Loechner, K.J., Knox, R.J., Connor, J.A., Kaczmarek, L.K. 128:41
–, voltage dependence of current through the Na,K-exchange pump of *Rana* oocytes, Wu, M.M., Civan, M.M. 121:23
Voltage-dependent gating
–, subunit requirements for *Torpedo* AChR channel expression: a specific role for the δ-subunit in voltage-dependent gating, Golino, M.D., Hamill, O.P. 129:297
Voltage-dependent ion currents
–, role voltage-dependent ionic currents in coupling glucose stimulation to insulin secretion in canine pancreatic islet B-cells, Pressel, D.M., Misler, S. 124:239
Voltage gating
–, action potentials in *Acetabularia*: measurement and simulation of voltage-gated fluxes, Mummert, H., Gradmann, D. 124:265
–, modification of gating of an airway epithelial chloride channel by 5-nitro-2-(3-phenylpropylamino)benzoic acid (NPPB), Alton, E.W.F.W., Williams, A.J. 128:141

Voltage inactivation
–, slow voltage inactivation of Ca^{2+} currents and bursting mechanisms for the mouse pancreatic beta-cell, Smolen, P., Keizer, J. 127:9
Voltage-sensitive anion-selective channels
–, anion channels from rat brain synaptosomal membranes incorporated into planar bilayers, Nomura, K., Sokabe, M. 124:53
Voltage-sensitive Ca^{2+} currents
–, activation of voltage-sensitive Ca^{2+} currents by vasopressin in an insulin-secreting cell line, Thorn, P., Petersen, O.H. 124:63
Voltage-sensitive dyes
–, charge translocation by the Na,K pump: II. ion binding and release at the extracellular face, Stürmer, W., Bühler, R., Apell, H.J., Läuger, P. 121:163
–, charge translocation by the Na,K-pump: I. kinetics of local field changes studied by time-resolved fluorescence measurements, Bühler, R., Stürmer, W., Apell, J.J., Läuger, P. 121:141
Voltage-sensitive ion channels
–, tissue-specific expression of the voltage-sensitive sodium channel, Mandel, G. 125:193
Voltage sensitivity
–, voltage dependence of current through the Na,K-exchange pump of *Rana* oocytes, Wu, M.M., Civan, M.M. 121:23
Water channels
–, flow cytometry and sorting of amphibian bladder endocytic vesicles containing ADH-sensitive water channels, van der Goot, F.G., Seigneur, A., Caucher, J.C., Ripoche, P. 128:133
Whole cell currents
–, activation of voltage-sensitive Ca^{2+} currents by vasopressin in an insulin-secreting cell line, Thorn, P., Petersen, O.H. 124:63
–, whole-cell and single-channel currents across the plasmalemma of corn shoot suspension cells, Fairley, K., Laver, D., Walker, N.A. 121:11
Whole cell recording
–, inwardly rectifying potassium current in rabbit osteoclasts: a whole-cell and single-channel study, Kelly, M.E.M., Dixon, S.J., Sims, S.M. 126:171
X-ray microanalysis
–, effects of potassium-free media and ouabain on epithelial cell composition in toad urinary bladder studied with x-ray microanalysis, Bowler, J.M., Purves, R.D., Macknight, D.C. 123:115
Xenopus laevis
–, a TEA-insensitive flickering potassium channel active around the resting potential in myelinated nerve, Koh, D.S., Jonas, P., Bräu, M.E., Vogel, W. 130:149
–, a negative slope in the current-voltage relationship of the Na^+/K^+ pump in *Xenopus* oocytes produced by reduction in external $[K^+]$, Rakowski, R.F., Vasilets, L.A., LaTona, J., Schwarz, W. 121:177
Xenopus oocytes
–, electrogenic properties of the cloned Na^+/glucose cotransporter: I. voltage-clamp studies, Parent, L., Supplisson, S., Loo, D.D.F., Wright, E.M. 125:49
–, regulation of endogenous and expressed Na^+/K^+ pumps in *Xenopus* oocytes by membrane potential and stimulation of protein kinases, Vasilets, L.A., Schwarz, W. 125:119
–, role of Lys 558 and Lys 869 in substrate and inhibitor binding to the murine band 3 protein: a study of the effects of site-directed mutagenesis of the band 3 protein expressed in the oocytes of *Xenopus laevis*, Wood, P.G., Müller, H., Sovak, M., Passow, H. 127:139
–, subunit requirements for *Torpedo* AChR channel expression: a specific role for the δ-subunit in voltage-dependent gating, Golino, M.D., Hamill, O.P. 129:297
–, the cloned cardiac Na channel α-subunit expressed in *Xenopus* oocytes show gating and blocking properties of native channels, Satin, J., Kyle, J.W., Chen, M., Rogart, R.B., Fozzard, H.A. 130:11
–, transport and membrane binding of the glutamine analogue 6-diazo-5-oxo-L-norleucine (DON) in *Xenopus laevis* oocytes, Taylor, P.M., Mackenzie, B., Hundal, H.S., Robertson, E., Rennie, M.J. 128:181
Yeast
–, characterization of constitutive exocytosis in the yeast *Saccharomyces cerevisiae*, Lew, D.J., Simon, S.M. 123:261
Zea mays
–, permeation of Ca^{2+} through K^+ channels in the plasma membrane of *Vicia faba* guard cells, Fairley-Grenot, K.A., Assmann, S.M. 128:103
Zellweger syndrome
–, targeting of proteins into the peroxisomal matrix, Subramani, S. 125:99
Zinc efflux
–, calcium-dependent zinc efflux in human red blood cells, Simons, T.J.B. 123:73
Zinc ions
–, intracellular free zinc and zinc buffering in human red blood cells, Simons, T.J.B. 123:63